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I.—*Examination and Anelysis of the Mackenzie Manuscripts deposited in the Madras College library. By the Reverend WILLIAM TAYLOR.*

[Continued from page 131.]

Palm-leaves, No. 42, Countermark 308.

B :—TELUGU.

I.—*Crishna Rayer Vijayam, or the Triumph of CRISHNA RAYER.*

This book is in *Telugu* verse of an ornamented kind. Its object is chiefly to celebrate a victory obtained over the Muhammadans, and a treaty cemented by marriage with the *Gajaputi*, or king of *Orissa*. After the victory over the Muhammadans, it was judged expedient also to curb the *Gajapati*, who was in alliance with them. At first war was commenced; but, difficulties arising by the counsel and skill of APPAJI, the rayer's minister of state, proposals of peace from the *Gajapati* were brought about, and the latter offered to give his daughter in marriage to the rayer. In the native manner, a parrot it is said was sent to narrate to the rayer the descent and superior qualities of the other rája's daughter. This office the parrot discharged and the marriage was celebrated, with which the poem concludes.

This copy of the work is written on palm-leaves decayed at the edges but otherwise complete, and in good preservation. Its restoration does not seem to be urgent or indeed important: the following is a fuller abstract of the contents.

The author's name is VENGAIYAM son of CALAI, who invokes his gods, and the poets of antiquity, such as VALMICA and others. He wrote by direction of SRI RÁMA given in a dream, HARI-HADI-CHENNA VENCATA-BHU'PA'LA was his patron, who instructed him to write the history of CBISHNA rayer. He first celebrates *Vijayanagaram* and the

praise of NARASINGA rayer (father of CRISHNA rayer). He states that NARASINGA rayer demanded of him an account of the primitive state of the *Vidyáranya* (site of *Vijayanagaram*) and of the worship of *Virupacshī*, (a form of *Siva*) and of the proceedings of *Vidyaranahi* (a sage) before the town was built. These are narrated to the following purport.

ISVAREN assumed the form of VIDYARANALU, afterwards called SANCARA'CHA'RYA. He demanded and received from LACSHMI the privilege of having a town built in that wilderness bearing his name, where she (*Lacshmi*, that is plenty) might always reside. She directed him to go and choose some place. He went to the banks of the Túmbúdra river, and there seeing the fane of *Virupácschi-israrer*, he inquired into the origin of the place, which those versed in such matters narrated to him. The legend was founded on a tale from the *Ramáyanam*. SUGRIVA ascended this hill, but VALI could not do so. There are five hills, called *Malvatam*, *Yénacutam*, *Busura stringam*, *Madhangaparratam*, *Kish-kindī*. They told him that this sacred land was suitable for his abode. At the same time he perceived a hare chasing a lion, at which being surprised, he remarked that this was a special place for the brave, and here a town must be built to be called (after his name) *Vidyánagaram*.

A transition is then made by stating, that NARASINGA rayer, after hearing many things on the ancient history of the place, addressed his minister APPAJI stating his wish, that his son CRISHNA rayer should be crowned, or installed, which was accordingly done. CRISHNA rayer sought advice and kingly prudence from APPAJI, who instructed him. He then desired to see all the forts and other strong places. He acquired full information on all points. He also went out in disguise, the better to know if the matters conveyed to his knowledge were true. He thus lived some little time in a brahman's house unknown; but being found out by his *harcarras* the brahman asked why he so came? He said it was for "the destruction of the evil and protection of the good." The minister SALUVA TIMMA brought to him great treasure. The *harcarras* in his hall of audience, reported to him matters concerning *Visiapuram*, and the Nizam, that a negociation was being carried on between the Nizam, the *Gajapati* prince, and the ruler of *Visiapuram*, in consequence of a dread or dislike of CRISHNA rayer's accession to the throne of NARASINGA rayer. The minister represented that as the *Gajapati* was a worshipper of *Jagannatha*, and a protector of the brahmans, it would be right to pardon him, and it was determined on to proceed against *Delhi* (the Muhammadans) in preference. To this end preparations were made, and CRISHNA rayer proceeded at the head of his

army. Many favorable omens occurred, inferior chiefs of districts were overcome, and their districts assumed. All who submitted were protected. At length, after many conquests, he directed his march against *Golconda*. A great army amounting to a hundred thousand cavalry came thence with precipitancy and halted on the other bank of the *Kistna* river. A general assuring the rayer of his ability to disperse the Muhammadans, received permission to do so, and he fell upon them on the bank of the river ; when, after hard fighting, the Muhammadans were defeated and fled. Some persons advised the rayer to assault the town, but the advice of the minister was that the place was too strong ; he rather advised to directt heir course eastward against the *Gajapati*, who had harassed and impeded them on their march. The rayer consented, and while on the way to attack the *Gajapati*, he was opposed by scattered portions of different people, fighting without union or plan who were one by one overcome, and at length they all came proffering submission. The rayer received them favorably and confirmed them in their possessions, (as tributaries understood.) Proceeding onwards the rayer with his army invested *Amidanagara* (*Ahmednagar*). The Muhammadans of the place made fierce resistance ; but were at length defeated. CRISHNA rayer took possession of that hill-fort, and erected his flag on it. Still advancing against the *Gajapati*, his minister SALUVA TIMMA represented to him, that though he could unquestionably conquer the *Gajapati*, yet that as the road was difficult, opposition would be considerable ; and that it would be best to make a treaty of peace with the *Orissa* prince. CRISHNA rayer paid no attention to him ; but saying that the forest was no great thing, it could be cut down, and the *Gajapati* no great matter, he proceeded in anger. On the way SIDAVU khan opposed with sixty thousand bow-men. The fighting was obstinate ; the khan having for his object to promote the glory of the *Gajapati*. News came to the *Orissa* prince that CRISHNA rayer was approaching, and the ministers of that prince advised him to go to the re-inforcement of the Muhammadan chief. Sixteen other chiefs around the *Gajapati* rose up, and asked leave to go against the invading army, which leave was granted. CRISHNA rayer hearing of their coming became discouraged, and reflecting on his having before slighted the advice of APPAJI, he sent for him, admitted the error, and asked how it was now suitable to act. APPAJI said it would not be possible to conquer their opponents, but that division must be caused amongst them. Receiving all needful treasure from the rayer he wrote deceptive letters, addressed to the sixteen chiefs, and sent them in boxes in which were presents of money, with honorary dresses and ornaments : these

were given to messengers, who were sent on alone, and falling into the hands of the *Gajapati's* people, they were taken before him. The *Orissa* prince read the letters with great astonishment. The purport was to say that CRISHNA rayer consented to the terms proposed by the chiefs, and that if they would take and deliver up the person of the *Gajapati rāja*, the villages, money and jewels, as stipulated, should be made over to them. The *Orissa* prince, fearing for his personal safety retreated to some distance privately; and the chiefs, not seeing the king or knowing what was become of him, desisted from fighting. The rayer, on his part, did not advance his troops, and made no assault. APPAJI now proceeded to the *Orissa* prince, and told him that CRISHNA rayer desired his welfare. The *Gajapati* hesitated for a time; but at length thinking the rayer might be trusted, he came to an audience, bringing presents. Both parties exchanged salutations; the *Gajapati* offered his daughter in marriage; and APPAJI being greatly rejoiced strongly recommended the union. At the desire of the ruler of *Orissa* APPAJI followed him, being treated with great honors, and allowed to see the king's daughter. When about to return, the daughter named TUCA-RAMANI sent a parrot to her father who transmitted it by APPAJI to the rayer. The bird after narrating its own divine origin, and the perfections of the person sending it, gave the rayer satisfaction. The marriage was celebrated, and the rayer returned to *Vijayanagaram*.

Note. This somewhat full abstract may perhaps supersede the necessity of any translation, so far as historical objects are concerned. FERISHTA admits that CRISHNA rayer severely defeated the Muhammadians: the other matters are probably historical. The *ornument* at the close may be oriental metaphor merely to designate a messenger who was to repeat what was ordered, and no more. SALUVA TIMMA seems to have been the proper name of the minister; and *Appaji* a sort of title of office: many tales are current of the skill and address of APPAJI the minister to CRISHNA rayer.

Professor WILSON's notice of this manuscript may be found in Des. Cat. Vol. I, p. 296.

Manuscript Book, No. 33, Countermark 787.

Section 5.—Brief narrative concerning the rule of the Setupatis, as feudatory princes at Ramnad.

This paper mentions a traditional guardianship of the *Ramiserom* temple committed to seven persons, one among whom by hereditary descent, was SADÁICA, who in Sal. Sac. 1527 (A. D. 1606), was made lord paramount of the *Marawa* principality by TIRUMALA NAYAKER,

ruler of *Madura*. The transmission of the authority downwards with dates and names, and mention of connected events is continued to Sal. Sac. 1716, (A. D. 1795.)

As this short paper was translated and printed at the end of the appendix to Vol. 2 of Oriental Historical MSS. any more lengthened notice than the above, is not required. The original text was not then given ; and as the writing of the document was rapidly fading it appeared suitable to have it restored, and available at any time for reference as a record.

Manuscript Book, No. 31, Countermark 785.

*Section 1.—Account of TIRUMALA NAYADU and of his descendants,
the Carnátaca rulers of Madura.*

This manuscript was also translated and printed in the second volume Or. Hist. MSS. beginning at page 182. Hence there is need only to observe in brief, that it commences with the accession of the son of TIRUMALA NAYAKER to the throne at *Madura*, and brings the account downwards, with a somewhat minute specification of wars, negotiations and changes of power, to the period of the last feeble remains of the race, who received a village for their maintenance. In some of the details, where most obscure, this manuscript is confirmed and elucidated by the large Tamil manuscript before mentioned, the *Curnátaca rájákal*. At the time of making the above translation, this *Telugu* MS. was not without difficulty legible ; a rough copy of it was then made for greater convenience, and as the lapse of two years since has only added to the difficulty of reading the original, a restored copy has been prepared from the original aided by occasional reference to the rough copy, and the text not having been printed a correct record for reference is thus provided.

Section 2.—An account of the rule of CARI CÁLA CHOLAN.

In consequence of war with the *Pandya* king, a woman of the *Chola* royal race named CUNGAINA GENT'HI escaped alone into the wilderness, being pregnant ; and took up her abode in the house of a brahman a schoolmaster, and also an astrologer. By his art he declared concerning the child, after casting its nativity, that it would become a powerful and independent prince. In the ceremony of naming the child it was called CÁLI CHOLAN. After the ceremony of investing with the sacred thread, and while learning in the school, the boy was the object of much contempt from the other boys, being treated as the son of a widow. He retaliated on them ; but the brahman thought it best to keep him within the house. He became well instructed in knowledge and very powerful

in bodily strength. The *Pándiya* king then ruled the *Chola-mandalum*; but, wishing to place over it a viceroy, he made public proclamation in order to meet with a suitable person. A great concourse of claimants assembled. The *Pándiyān* then put a golden pot containing water on the head of an elephant, and a wreath of flowers in its trunk, announcing that the person on whom the elephant should place the wreath, and anoint by pouring on him the water would be regarded as chosen, and to that person the king would give his own daughter in marriage. The elephant being let loose, avoided all the people in the town, and going direct to the aforesaid brahman's house, there selected the youth by depositing the wreath on his head, and pouring the water over him. The young man was as strong as ten elephants, but in order to diminish his strength the brahman rubbed the sole of one of his feet with charcoal, and thereby took away the strength of nine elephants, leaving him only as strong as one elephant. He was subsequently installed at *Combaconum*; and had the name of CARI CÁLA CHOLAN given him to commemorate the rubbing of charcoal (*cari*) on his foot. But the king's daughter was not given him. He strengthened and enlarged his capital town. The young man learning from his mother that his father was before him king of the *Chóla* country, that his father had feared to encounter the *Pándiya* king, and had died during the disturbance that had arisen; resolved on vindicating his own, and his father's right: and, assembling an army, set out to make war on the *Pándiyān*. The army is stated at 250,000 cavalry, under commanders whose names are given, who approached the *Vaigai* river. The *Pándiyān* alarmed, brought to him treasure and jewels, and after much flattering homage, embraced him, and conducting him to his palace seated him, on terms of equality, on half of his throne, and married him to his daughter SID'-HE'SVARI, after which CARI CÁLA CHOLAN returned to *Combaconum*, where there were great rejoicings. He allowed the cultivators three parts of the produce, and took one-fourth (the ordinary rate used to be one-sixth), with which revenue he built and repaired many sacred edifices, gave large donations to brahmans, heard many religious stories recited, and was a firm votary of *Siva*. In order to see if his people were firm in that way, and with a view to discover and rectify evils, he was accustomed to go out in disguise, covered with a common dark-coloured hair blanket, during the night. Out of this custom arose the following circumstances.

There was an aged brahman who, as the result of long penance, had a son born to him, who when grown up was married, and the old man died, but not before having charged his son to carry his bones to *Cási*,

and bury them in the Ganges. The young man prepared to do so ; but on the eve of setting out slept in the porch of his house, and there gave strict charge to his wife to keep within doors, while he should be absent for a year and a half; the only exception being that, if in want, she might ask alms of the charitable prince CARI CÁLA CHOLAN. The latter was at the door ; and, admiring so great an act of confidence, determined on being the watchful guardian of that house. While the brahman was absent he watched it carefully; but the brahman returned within six months, on the way to complete his pilgrimage at *Ramiseram*, and wishing to assure himself of his wife's discretion, approached the door alone at night, and looked in through its apertures. The *Chólan* came thither at the same time, and thinking the brahman was a thief cut him down with a sword, and retired. His wife next day suffered great reproach from her neighbours, but recognizing her husband, she burned herself with his body ; and the king having unconsciously killed a brahman, had the visitation termed *Brahma-hatti* (a personification of the crime, as if an evil spirit, always following him). He made many attempts to get rid of it, but though the sprite quitted him at the door of a temple, or entry on a sacred pool, yet it always returned afterwards. He went on pilgrimage to the shrine of *Minátcchi* at *Madura*, who, in a vision, informed him that the visitation could not be so easily got quit of, but directed him to build 108 *Siva* fanes, and then at *Madhyáranya* he would be relieved. He accordingly built a shrine every day, not eating till each day's work was done ; but he did not know where *Madhyáranya* was. At length he found an emblem of *Siva* under a tree named *Madhi*; and *Siva* there appeared to him, directing him to build a temple ; to enter at one gate, where the sprite would halt, and would be imprisoned, and to go out at a gate on the opposite side : which the king did, and was cured. He however died childless, and his queen followed him. There was no *Chola* king after him, he reigned fifty-five years. The above things concerning him were compiled by CHACRATAI-YENGAR a *Vaishnava* brahman of *Mélur* from the *Bakhti Vilásan* and some other books, inclusive of *St'hala Mahátmyas*, or temple legends.

Remark. Fable and fact appear to be blended in the first portion of this account, the latter portion explains and illustrates some parts of the *Madura Puránam*, and from the comparison of the two, a few historical facts may be gleaned with some measure of certainty. It is to be noted that this last of the *Chola* race, made *Combaconum* (twenty miles north of *Tanjore*) his capital. This is the first document I have as yet met with stating that fact ; though I always thought that *Combaconum* must once have been a metropolis, from traces remaining.

Section 3.—An account of the Yánádu játi, or wild people of Sri-hári-cóttá, received from an old man of that tribe.

Of old one named RÁGHAVA brought with him sixty families from *Púca-natti* district ; and located himself with them at *Sri-hári-cóttá*, and clearing the country formed *Rághava-puram*. The people by degrees spread through a few adjoining districts. A *rishi* who came from *Benares* and was named AMBIKE'SVARER resided in *Madhyáranya* (or the central wilderness) ; and there, daily bathing in a river, paid homage to *Siva*. These wild people of their own accord daily brought him fruits and edibles, putting them before him. At length he inquired of them the reason, they replied that their country was infested by a terrible serpent, and they wished to be taught charms to destroy it, as well as charms for other needful purposes. He taught them, and then vanished away.

These wild people, being skilful in magic, continued in the forest. They are of four classes :

- | | |
|--------------------------|-------------------------|
| 1 <i>Chenju-Vándlu</i> , | 3 <i>Coya-vándlu</i> , |
| 2 <i>Yánádulu</i> , | 4 <i>Irālā-vándlu</i> . |

The Yánádu people are skilful in medicine. The Coya people reside to the westward in the wilds at *Gooty*, *Atharani*, and other circumjacent places. Within their forest boundaries, if any traveller attempt to pluck fruit from any tree, his hand is fastened to the spot, so that he cannot move ; but if on seeing any one of the Coya people, he call out to that person explaining his wishes and get permission, then he can take the fruit, and move away ; while the Coya forester, on the receipt of a small roll of tobacco leaf, is abundantly gratified. Besides which the Coya people eat snakes. About forty years since a brahman passing through the district saw a person cooking snakes for food, and, expressing great astonishment, was told by the forester that these were mere worms ; that if he wished to see a serpent, one should be shewn him, but that, as for themselves, secured by the potent charms taught them by AMBIKE'SVARER, they feared no serpents. As the brahman desired to see this large serpent, a child was sent with a bundle of straw and a winnowing-fan, who went accompanied by the brahman, into the depths of the forest, and putting the straw on the mouth of a hole commenced winnowing, when smoke of continually varying colors arose, followed by bright flame, in the midst of which a monstrous serpent, having seven heads was seen. The brahman was speechless with terror at the sight ; and, being conducted back by the child, was dismissed with presents of fruits, and proceeded to the north. This circumstance occurred among the Coya people of the woods or wilds to the northward

of *Pála-Vamchcha b'hadráchalam* in Sal. Sac. 1635, (A. D. 1712-13.)

The *Chenju* people live to the westward of *Ahóbalam*, *Sri-Sailam* and other places, in the woods or wilds ; and go about constantly carrying in their hands bows and arrows. They clothe themselves with leaves, and live on the sago, or rice, of the bamboo. They rob travellers, killing them if they oppose. " This people afflict every living creature :" (kill for food is supposed to be meant.)

The *Irala* people carry bows and arrows, and wander in the forests. They are thieves. The *Yánádu* class alone do not plunder. They are employed as watchmen : they collect a kind of bark and roots, used for dyeing red, bringing heavy loads, and receive whatever the sircar is pleased to give in return. They chiefly live on a kind of white root and wild-honey. The sircar employs them as watchmen. In the woods near *Sri-hári-cotta* there are forty of these *Yánádu* people (supposed to be heads of families). The sircar gives to the head man of these people twelve *maracals* of rice monthly : in return he delivers sometimes ten bundles (each five hundred lbs.) of the dyeing bark. The others, who do not carry on this intercourse, live in their own manner in the forest on white roots and honey. This handful of *Yánádu* people seem to be comparatively separated ; for if they attempt to hold intercourse with others of that tribe at a distance, they are killed ; and their wives are carried off : the others hold no intercourse with them. Such, as far as could be obtained, is an account of these *Yánádu* people obtained from JA'RA'MARUDU, as far as he could give information.

Remarks. This paper was read over by me a year or two since, without any other remark than that there were people in the *Peninsula* of whom Europeans had received little or no information. It now attracted attention chiefly from its following the preceding papers and from wishing to dispose of the entire book, No. 31, without need of future reference. But reading it now after having had previously in hand the paper on the *Khoi-játi* mountaineers of *Goomsoor*, (Mad. Jour. of L. and S. No. 16,) termed *Códalu*, in the *Telugu* paper therein translated, it appears to assume more importance than otherwise I should have attributed to it. For it seems that the proper term is neither *Khoi*, nor *Codalu*, but *Cóya-játi* (in the ordinary pronunciation to the ear very similar to the enunciation of *Khoi-juti*), and that they are a subdivision of a much larger body of people. I am confirmed in my supposition that the so termed *B'heels* of the north in *Gujerat*, &c. are of the same kind of people, though seemingly more closely analogous to the *Chenju*, or *Irala*, class. As regards the seeming absurdity of the

bundle of straw and the large serpent, I am of opinion that this is an enigma, and covers some more recondite meaning. Having in the Mackenzie papers sometimes met with a fact plainly narrated, and in others veiled by fable, metaphor, and symbols, I have learned not hastily to dismiss such seemingly crude orientalism: but to try to look through them; and in this instance, without pretending to solve, what I am tolerably sure is a symbolical statement, I would throw out the conjecture, whether it do not allude to the *Meria-pujai*, or human sacrifice, which may possibly be the charm on which these *Cóya* people relied, and which they may have practised, as well as the savage inhabitants of the mountains of *Goomsoor*.

The locality of *Sri-hári-cotta* is about twenty miles northward of *Pulicat*: the country about *Gooty* stretches thence northwestward; but *Sri Sailam* is farther to the north. These savages are found in the *Goomsoor* wilds and mountains, and from personal information received by me, there is a very similar kind of people dwelling in the woody mountains of the *Dindigul* province, to the south. In the persons of the *Bheels* they dwell on the *Vindya* (or *Bhind*) mountains; and I have, in the paper before alluded to, shewn it to be probable that they inhabit the *Baramahl* hills to the north of *Behar*. The account of this people as carrying bows and arrows, living on roots, honey, or reptiles, agrees with intuitions throughout the more local papers of the Mackenzie collection, and with current fables as to the *Vedars* who seem to have been wild savage people, aboriginal when the Hindus first began to colonize it from the north. Thus we have a somewhat wide range of data for inductive evidence, in favor of this particular kind of people, under various subdivisions, having been the primary dwellers in the peninsula. The conclusion need not for the present be drawn; but it is clearly indicated: to be followed, possibly, by other equally plain steps of historical deduction, arising out of the Mackenzie papers, by the aid of patience and perseverance. The point once established, that the Hindus are not the aboriginal native inhabitants of the peninsula, does not seem to me of trifling magnitude; and this point, I expect, will be fully proved, in the process of the present investigation.

C:—MALAYALAM.

Manuscript Book, No. 3, Countermark 896.

Section 5.—Kerala Upatti. An account of the Kerala, or Mala-yalam country.

This manuscript is stated to be copied from one then in the possession of Dr. LEYDEN: the following is a brief abstract of the contents.

Invocation. The incarnation of PARASU-RÁMA and his destruction of the cshetriyas. He formed the *Kerala desam*, which being infested with serpents, he introduced the *Arya brahmans*, and located them in sixty-four villages. Minor details of internal arrangements. PARASU-RÁMA procured from INDRA the grant stately of six months' rain in the year. Other details concerning the classes of brahmans, and their offices. The brahmans at first conducted the government on the principles of a republic; but not agreeing among themselves, and disputes about property arising, PARASU-RAMA determined that it would be better for the country to be governed by a king, and one was selected born by a brahman father, by a cshetriya mother, thus combining brahmanical and kingly descent. He was first settled in the *Kerala* division, whence arose the name of *Kerala desam*, but the entire *Malayalam* country was originally divided into four districts. *Tíluva*, *Múshica*, *Keralam*, *Cúva*, the latter on the extreme south: details of the villages. At a late period in the *Cali-yuga* the bauddhas came to *Kerala-desa*; and the king CHERUMAN PERUMAL learnt from them their mode of religious credence. Being favorably inclined to them, and having adopted their system, he intimated to the brahmans that they must unite with the bauddhas, and follow their system. The brahmans were greatly alarmed and incensed, and consulting with a leading individual among them at *Tri-Cárúr*, he promised to remove their difficulties. Following his advice the brahmans went to the king and remonstrated with him, calling for a public disputation, when if they, the brahmans were vanquished, their tongues should be cut out, and the like done to the bauddhas if these should be overcome. The dispute was held, terminating favorably to the brahmans in consequence of a magical influence emanating from the head brahman at *Tri-Cárúr*: the tongues of the bauddhas* were cut out and they were banished the country. The king who had adopted their system was dethroned, and some lands were set apart for his support. He is not the CHERUMAN PERUMAL who went to *Mecca*. His son was crowned and an oath was taken from him, never to permit the bauddhas, or people of any other religion to obtain public sanction. Other details of some subsequent matters are given. At later periods, when the above oath had fallen into desuetude, the bauddhas (Muhammadans) obtained some footing in different places. The system of *Bhattáchárya* obtained in the *Mulayala* country, and the vedantists, of that class, received some

* In *Malayalam* it seems that the Muhammadans are termed *Bauddhas*. The Syrian Christians are called *Marga-carer* “people of a way;” but are never designated *Bauddhas*. Such a use of the last term as applied to Muhammadans is, I believe, peculiar to the *Malayala* country.

endowments in lands. At an assembly of the brahmans of the sixty-four villages, it was determined that only the brahmans of eleven villages (or village-districts) should possess the right of offering a particular species of *yagam* or sacrifice, and of performing some other special ceremonies. In process of time the rule of kings had become extinct, and some brahmans went to CRISHNA rayer inviting* him to take the rule of the country. He sent two persons respectively named *A the rája PERUMAL* and *Pandeya rája PERUMAL*, as his viceroys, each for a period of twelve years. After them CHERUMAN PERUMAL was sent, who was welcomed by some distinguished persons, safely conducted, and duly installed. He ruled thirty-six years, being three times the appointed period, on account of his good qualities. The rayer however was not satisfied with this extension of the term, and determined on hostilities. CHERUMAN PERUMAL took counsel as to the best means of meeting the invasion. In the first place two brahman ambassadors were sent to the rayer to endeavour to pacify him; but he refused to listen to them. A little fable is narrated of the manner in which the messengers acquired a magical quill, by looking through which the real nature of any being could be discerned. The *cheruman* in connexion with the *Calicut* rája, and other subordinates, assembled a great army, and, while the multitudes were asleep, by looking at them through the quill, it was perceived that 10,000 were men, 30,000 gods, and the rest *asuras*. To the ten thousand a distinctive mark was affixed, and with them the rayer was encountered and defeated.

The birth of SANCARA'CHIA'RYA is then narrated with his proceedings as to the different castes of people and the regulations established by him accounted for in rather a fanciful manner, but it is stated that his regulations continued to be observed. CHERUMAN PERUMAL continued to rule. A *Nayar* was killed, who after death is represented as instructing the king to attend to the lessons of a *Jonaca* (Muhammadan) teacher, according to whose advice he might embark on board ship, and would thereby attain a partial beatification. He† divided his whole dominions into eighteen portions, which he gave over to the charge of different chiefs. The two ambassadors by whose means the rayer had been conquered each received portions of country. He specially gave a shield to the *Calicut* raja. CHERUMAN PERUMAL then went away (by sea) to the country termed *Asu*, (supposed to designate Arabia.) The *Calicut* rája afterwards waged war with the various petty chieftains, conquering some of them, and acquiring superiority.

* He more probably conquered the country, without any special invitation.

† This is the CHERUMAN PERUMAL who is said to have adopted the Muhammadan religion, and to have gone to Mecca.

The arrival of the Portuguese at *Calicut* is noticed, and the *Calicut* rája is said to have fought with the captain. The rája ruled over eighteen forts, and seventeen districts. He fought continually with his neighbours; the Travancore and Tellicherry rájas being excepted. He subdued many countries, exaggeration appearing in the enumeration of them. He acquired pre-eminence above other kings. The customs of the *Calicut* kingdom are then narrated; laws regulating interest and profit. The commencement of the *Collam* era is thus accounted for. The rule of the viceroys of *Vijayanagaram* had been fixed at twelve years corresponding with the revolution, in orbit, of the planet Jupiter. But as CHERUMAN PERUMAL exceeded the prescribed time this mode of reckoning fell into disuse. In a period of great scarcity and drought, when a large reservoir (*Collam*) had become quite dry, the brahmans, in a body, went to the *Calicut* rája and represented that the cause was his withholding the customary largesses to the gods and the brahmans. The rája acknowledged his fault and promised to repair it. As a commencement a great number of brahmans were fed in the dry bed of the tank, and before they had finished eating, the water rushed in with such rapidity that they were obliged to make their escape without having time to take away the leaves on which their food had been eaten. An era was begun to commemorate this event, being the *Collam* era. Matters relating to the cultivation of cocoa-nut trees, betel vines, &c. customs in dealings, buying, selling, &c. Rules to regulate hunting. Origin of the *Nayars*, also of a kind of divinity derived from the fable in the *Mahábhárata* of *Siva*'s appearing to ARJUNA during his penance near the Himalaya mountains. The origin of the *Ayuiar* born from *Siva* and *Mohini*. The names of various local *numina* in the *Malayala* country are given. Names of various fanes in that country. Besides which the thirty-three *crores* of superior gods, and the sixty-six thousand *asuras*, are all said to have been in *Malayalam*, together with the superior gods protecting the country.

Afterwards the names of the *Calicut* rájas and other inferior chiefs are given. The story of a *Jonaca* (Muhammadan) who came to this country, the cause of which is narrated; the foreigner extended the dominion of the *Calicut* rája; magnificent things are stated as to the conquests of the *Calicut* rája, originating in his devotedness to *Sri Bhágavatí*, and her gifts to him. Notwithstanding the foreign Europeans came and took possession of *Calicut* whom however, in the end, the rája defeated. The *Curumbas* of the hilly district greatly helped, and had districts given in consequence. Disputes between this *Curumba* chief and the *Cochin* rája. Details of the number of *Nayars* belonging

to different parts of the country. Reference to the regulations made by PARASU-RAMA, and confirmed by SANCARÁCHA'RYA as to the distance which must be observed by different castes, in their approach one towards another. The distance in feet being minutely stated. Brahmans and cows are of good birth, other classes of men and other animals not so. With these regulations as to personal distinctions, and caste observances the account concludes.

Remark. The writing of this document was in one place very much faded. As it is one of the best of the few *Malayalam* MSS., it has been restored; and its entire translation is recommended, notwithstanding that it contains some things puerile, and some absurd. Still there are real historical details, and these can always be best selected, after that the whole evidence of any document, whether important or trifling, has been fully and fairly brought into view.

D:—MAHRATTI.

Manuscript Book, No. 6, Countermark 918.

An account of kings of the four ages, and specially of the Mahratta kings of Sattara.

An account is proposed to be given of the four ages, the kings of *Hastinapuri*, the *Muhammadans*, the *Maharashtras* and *Bhoslas*. The narrative is professed to be received from VITALA svámi, an incarnation of a portion of the divine essence near *Sattara*. Mention of the incarnation of VISHNU in different ages. With a brief reference to other kings, the lines of *Yudishthira* is given. Then the ancient line of the *Bhosla vamsa*, ruling for 1330 years. A further list of the line of *Yudishthira*. JEYH SINH from the Bengal country made great conquests. Various other kings. NARADA SINH is said to have ruled at the commencement of the era of *Sáliváhana*. The race of NARADA SINH is given. In *Sal. Sac.* 500 the Padshah is said to have ruled in *Hastinapuri* (*Delhi*.) The sultans of this race protected the *Maharáshtiras*, and gave them lands to the southward of the *Nerbudda* river. Some little matter is given in the *Balbund* character. The Padshah's instructions to the Mahrattas as to tribute and duties. The instructions of the great Mahratta (i. e. the *Bhosla*) to his tribe and dependants, as to the manner in which they were to govern so as to fulfil the Padshah's wishes, and not to oppress the accountants, or people. A list of the *Bhosla* race. A request made by the *Diván* (or *Peshwa*) to give him a grant of land. The *Bhosla* pointed out the neighbourhood of *Poona*; and gave him a grant of land there subject to quit-rent, or tribute. Subsequently the *Diván* named BAJI RAO, did not

send tribute to the *Bhosala*, on which account the latter wrote two or three letters. The reply was in substance, that as the *Bhosala* derived his possessions from the Padshah, so he, BAJI RAO, owed him, the *Bhosala*, nothing ; but that the tribute must be given to the Padshah. Both parties appealed to the Padshah, in consequence of which appeal, an order came to the *Bhosala*, directing him not to interfere with the *Diván*, and that tribute from the latter must be sent to the Padshah. The *Diván* did send tribute for a short time and then discontinued doing so. In consequence the Padshah sent a detachment of troops to demand the stated revenue; but the officer was put off with various excuses. Meantime the troops killed every day twenty or more cows, on which the *Diván* remonstrated and wrote to the Padshah who replied, that it proceeded from his refusing to pay his tribute, which if he did the annoyance would be withdrawn. The *Diván* requested a small portion of land to be bestowed on him, in free gift, or fee simple, wherein he might carry on the rites of his religion without molestation. The Padshah consented, bestowing on him an *inam* grant; and restored all the remainder of his former possessions to the *Bhosala*, as a tributary. The *Diván* within his small district strengthened himself by degrees, and assembling troops at length ventured on making war on the *Bhosala*, who being occupied chiefly in peaceable duties and depending on protection from the Padshah kept up no great standing army; as a consequence he was attacked by the *Diván*, taken prisoner and carried to Poona. As the *Diván* obtained great plunder and wealth from the *Bhosala* so he greatly increased his army therewith; and, when the Padshah assumed hostile demonstrations, he sent word to say, that the country south of the *Nerbudda* was fitting to be ruled by brahmans; that he, the Padshah, need give himself no trouble, for whatsoever tribute was demanded should be remitted. The Padshah relaxed on receiving this message; and consented to receive tribute. The *Diván* accordingly had accountants prepared in the different languages of the country, being *Gujerati*, *Baibandi*, *Mahratti* and *Canarese*. BAJI RAO now sent messages to the *Guicowar*, to *Scindiah*, and the ruler of the *Cóngama* country (the *Konkán*) calling on them for allegiance and tribute in which case he would protect them, seeing that he held his authority by sanction of the Padshah. The consequence was a war with the *Cóngama* country, which he conquered; and next the conquest of the *Guicowar* the ruler of *Gujerat*. The ruler of *Visiapúr* hearing of these proceedings determined to make war on BAJI RAO to humble him and to assume his country. This he did and began to rule over that country in Sal. Sac. 1610, (A.D. 1687, 8.) The name of his viceroy was SHAHOJI. Other changes

and revolutions followed, one named RAM SINGH obtained a temporary ascendancy; but the *Visiapur* Padshah sent an army and overthrew him and subsequently re-instated the *Bhosula* as a tributary. His name was SIVAJI : other wars followed. List of rájas of the *Bhosala* race, who subsequently ruled; with the period of each one's rule. The *Cólapur* rája meantime protected the posterity of the beforementioned BAJI RAO. A number of zemindars or persons who had received benefits from BAJI RAO, were assembled; and counsel was held as to the means of raising an army to go against the *Bhosala* and re-instate the descendant of BAJI RAO. An application was made by him to Bombay for help from the English there in Sal. Sac. 1635 (A. D. 1712,13), stating his prior claims to the country, now governed by the *Bhosala*. It would appear that they gave assistance. The descendant of BAJI RAO then addressed a memorial to the Padshah stating his claims, a copy of which, at length, is given. It is verbose in details of preceding matters; assuming in part, somewhat the air of a manifesto, demanding at least the restoration of the small *inam* grant, or independent territory, before given to BAJI RAO or else with the aid of the *Cólapur* rája, and other auxiliaries, the memorialist would be prepared to make war for the recovery of his patrimonial inheritance. This memorial was written in Sal. Sac. 1572 (A. D. 1659-10) : on the despatch of the memorial, the writer of it set out at the head of 25,000 men to attack the ruler of *Visiapur*; halting at the village named *Visála-gadda*; whence a few troops of the Padshah retreated. The *Visiapur* Padshah went, it is stated, to *Goa*, giving instructions to his respective chiefs; especially to the commander at *Aurungabad*. The minister of the young man named NANA FARNIS interposed his counsel; to the effect that the *Visiapur* Padshah was too strong for him; that the concentration of troops forming at *Aurungabad* would render it inexpedient to go against *Visiapur* itself; and that it would be better to proceed against the *Bhosala* rája of *Sattara*. This counsel was followed. The army was made to retrograde; and was turned towards the latter place. DIL ALI KHAN came to the assistance of the *Visiapur* Padshah with 60,000 troops from the Padshah of *Baganagur* (*Bisnagur*?) The young man was greatly intimidated by the arrival of this auxiliary force. He divided his army into two divisions proceeding with 13,000 against *Sattara*, and sending 12,000 into the *Congoma* country (the Konkan), which latter was conquered and brought under revenue management. The *Sattara* *Bhosala* fearing to encounter the invaders, relinquished the country and gave it up to them. The descendant of BAJI RAO in consequence gave to the *Bhosala* a small territory, to hold as a feudatory; on the condition of being ready to do mili-

tary service whenever summoned. His title was still to be *Siraji Bhosala Mahá-rája*. The descendant of BAJI RAO soon after died. He had no child, but his wife was pregnant, and under the instructions and guidance of NANA FARNIS a regency was formed *ad interim*. A transition is then made to the race of the aforesaid *Bhosala*; their names, dates, and periods of rule being given. Details of their donations, and endowments of shrines. The before mentioned wife of BAJI RAO's descendant was delivered of a son, who was named PANDA PRATANA BAJI RAO, great rejoicings were made, and the government was conducted by NANA FARNIS. A woman of the same race named GANGI BHAI had a share in the government. The young man on coming to 16 years of age was installed, and named SIMANDAR BAJI RAO. He had some English auxiliaries in his pay, and made conquests in the neighbouring *Cong-mu*, and *Telinga* countries. He established DOWLUT RAO SCINDIAH, HOL-KAR RAO the *Guicowar*, and also the *Bhosala* as subordinate chiefs; the authority descending to their posterity. He himself maintained a standing army, as stated of a crore, or ten millions, (that is to say a large army.)

The preceding account was written by APPAJI of *Mysore* in A. D. 1806, finished on the 12th April at *Poona*.

Remark. It will appear from the above abstract, that the document to which it refers is of considerable relative importance towards illustrating the history of the Mahrattas, from the time of their origin. I would defer stating any thing, with reference to full translation, until the various documents in the Tamil language, some of them of great length and much detail, bearing on the history of Mahrattas, have undergone a more full examination by me. The present document can be referred to at any subsequent period. The manuscript book containing it was damaged and in rapid progress towards decay; on which account, as well as from the presumed value of the contents, the document has been restored.

E:—SANSKRIT.

(*Grantha* character.)

Palm-leaf Book, No. 236, Countermark 1044.

Chatur Vimsati Puránam.

Invocation. A brief indication of the contents, then a reference to the author, and to his readers. The *Purána* is derived from the supreme

lord PARAMESVARER, its virtues and beneficial tendencies are announced, great virtues of its writer : great advantages will result to its readers.

The *Purána* opens with a reference to VRISHAB'HA *Svámi*, who lived in the centre of the southern portion of the land of *Bharata* in *Jambu dwipa*, (central Hindustan,) an early *Chacrvarti* (or ruler) came to him, and begged to know all customs, differences of times, and other matters from the time of SUSUMAN. The *svámi* favorably received his request and taught him the *Múlatantra*, or principal system, which was delivered by GAUTAMA to SRENICA, the great king, and consisted of 455,442,003,100,530 stanzas. This, the great *Puránu*, is taught from age to age. The account is then conducted as if repeating what GAUTAMA stated to SRENICA, a specification of the various *yogas*, that is, religious rites or modes of worship. A reference to SVAYAMBHUVA MANU and the matters which occurred in his time introducing the mention of the *Ulsarpani* and *Avasarpini* periods; the former prosperous as following the renovation of all things after the periodical deluge; the latter adverse, as going before and preparing for the destroying and purifying deluge. (See MS. book, No. 12, Section 1.) The peopling of the *Bharata candalam*, (or continent of India) with the *Manus*, *Chacrvartis*, and people is next adverted to. The prompt justice and equity of the *Chacrvartis* in the punishment of crime. The book then mentions various matters, concerning the world, countries, towns, kingdoms, sacred rivers or pools, donations, penance, in detail. In those times men believed in only one creator, who created men good and evil, not according to his own purpose of mind, but according to their good and evil deeds in a former state of existence. Afterwards the bounds and the nature of the *Bharata candalam* (or upper India) are stated, its hills, peaks of mountains, &c. The great city of *Alacapuri*, on the northern portion, its ruler was ATHIPASEN king of the *Vidyádhara*s, (a species of celestial): he considered the luxury of kingly rule to be like smelling a poisonous flower, and relinquished the kingdom, devolving it on his son; and, becoming a naked ascetic, he was initiated into the *Jaina* system. Details are given of that system. MAHAPALEN governed, he had four ministers, two of whose names were MAHAMATHI and SVAYAMPUTTI. One day SVAYAMPUTTI, being a distinguished person among the *Jainas*, asked the king some questions of a religious character to which the king replied, and they both agreed that the body dies, yet that the *Jivan* (life or soul) does not die. A story is narrated in illustration; to the advantage of the *Jaina* system. Various accounts are given of persons who by acts of merit according to the *Jaina* belief, obtained beatification. Some ac-

count of persons who by evil actions incurred the pains of *Náraca* (or hell.) Description of the various places of torment, and the punishment inflicted: being instructed, or purified, thereby: the persons so punished subsequently attain to happiness. Mention of persons who obtained beatification in the *Isana-calpam*. There follow details of capital towns, each the metropolis of a state or kingdom. Prophetic declaration as to the future birth of *VRISHAB'H'A svámi*, his incarnation; *BRAHMA* and other gods did him homage. Many matters follow concerning that incarnation and its praises. An account of the instructions given by *VRISHAB'H'A svámi* seated on a lofty seat, or throne; *BHARATA* and others received his lectures, an account of their panegyric on the teacher. The glory of the *Jaina* system dwelt on. The *Chacrvarti* afterwards returned to *Ayodhya*, and received homage from the *Vidyádharas*; in a dream he had a vision of the god who announced to him that persecutions and sufferings would arise from the *Púshandis* (a contemptuous epithet applied to the *Saivas*), and also from the *Mlechchas* (outcasts or barbarians), detailed at length. The *Chacrvarti* in the morning performed the rite of ablution, in order to remove the evil of the dream, or to avert its accomplishment. Details of *PRABASAN*, *CUMB'HAM*, and many others, are given, as coming from the mouth of *GAUTAMA*, delivered to *SRENICA*, that is to say, of what kind of birth or form of being, they before were, (on the system of the metempsychosis,) what kind of actions they performed, afterwards being instructed in the *Jaina* system, they acquired beatification. These various accounts in much detail occupy the rest of the work.

Note. This palm-leaf manuscript on examination was found to be complete, and in good order; with the exception of about fifty leaves at the beginning. These were restored on other palm-leaves, and added to the book, for its more certain preservation.

The work it will be seen carries up the origin of the *Jaina* system to the very birth of time; yet as the whole turns on the alleged incarnation of *VRISHABHA svámi* (considered by some to be a subordinate incarnation of *VISHNU*), and as *VRISHABHA svámi* was posterior to *GAUTAMA BUDDHA*, the evidence for such high antiquity may receive as much credence as any one may choose to bestow. In truth the *Jaina* system, at its origin, was a modification of the *Vaishnava* one. To me it seems that the *Páli* work (about to be published in *Ceylon*), entitled the *Mahawanso* (or great genealogy), clearly fixes the origin of the *Bauddha* and *Jaina* systems at *Mágadha*, three or four hundred years antecedent to the Christian era. Nothing in this work, as it

seems to me, contradicts such an origin; without being easily reconcileable thereto. The entire book might be worth translating, at some future period; for though the *Jaina* legendary history is as much beclouded with metaphor, and fiction, as the *Brahmanical*; yet, from a comparison of the two, facts may be selected which could not be received on the evidence of either one of the parties.

Prof. WILSON's notice of this book (Des. Cat. vol. 1, p. 152) is as follows :

“ VI. CHATURVINSATI PURÁNA.

“ *Tamul Language and Character, Palm-leaves.*

“ An account of various sovereigns, peculiar to the legendary history of the *Jainas*, who flourished contemporaneously with the twenty-four *Jainas*, as *Vidyádhara*, *Mahábala*, *Vajrabáhu*, *Vajragarbhá*, *Nábhi*, *Vrishabha*, *Bharata*, *Anukampana*, *Sripála*, *Samudravijaya*, *Sri-shena*, &c. In three books, by *VIRASOMA SURI*.”

The statement of this book being in the Tamil language and character must have been an oversight of Prof. WILSON's assistant. It is a *Prakrit* (or unpolished Sanskrit) work of the kind sometimes denominated (by natives of other provinces than the Tamil district), the Tamil *Granth'a*; the term *granth'a* not then denoting merely a book, but a *Prakrit* work, both in letters and language.

Conclusion.

In this report I have not included all the works that have been the subject of examination, collation and restoration during the brief period of two months, to which it refers; but only so many as would suffice to form a primary volume of restored documents; of which moreover, I could get the abstracts written over from my rough notes in sufficient time; and the preparation of an abstract, forms to me, not the least laborious part of the duty. Such MSS. as for the present lie over, I purpose to include within a following statement.

II.—*On the Revolution of the Seasons.* By the Rev. ROBERT EVEREST.

(Continued from vol. VI. p. 308.)

When my last paper upon this subject was in hand I was in hopes of receiving additional lists of the prices of corn from different parts of the country, which might enable me to trace the average line of variation throughout the last century with a considerable degree of regula-

rity. In this I have been so far disappointed, that the lists received have been very few, and not above two of them extending more than 25 years back. That the data which they, together with those already in my possession, afforded, should be insufficient to give results regular, or nearly regular, was no more than experience with the most recent period (from 1835 to 1806) led me to believe. But there are some farther impediments to extending the investigation beyond 1806 which must be particularly noticed. 1st. Many of the lists do not extend beyond 1812; only 12 out of 30 reach to 1792, and only 5 to 1750. Each of these lists has a particular mean dependent upon local circumstances, and the cessation of it affects the general average. The only way to obviate this source of error, would be to reduce each list to a common mean, the labour of which would be very great. 2ndly. No registers of the prices of corn for this period have been kept with a view of ensuring accuracy; consequently the lists have been filled up from the best information that could be procured, such as the private memoranda of individuals, merchants, and others: of course the more distant the time the more scanty and uncertain those data would become, and we can hardly believe but that many of the results they furnish must be, in a degree, erroneous. 3rdly. Previous to the year 1806 great part of the country was still in its age of chivalry; at one time subject to the passage of numerous armies, sacking, plundering and devastating; at another to the forays of bands of knights-errant. Besides this, the different governments often took the corn dealer under their paternal care, and he was made to sell as the caprice of a tyrant, or the clamours of an unthinking people, obliged him.

All this being premised we have now to state what the actual result of an examination of the lists has been. The lists which formed the N. W. line in a previous paper were not increased in number, but separated into two divisions, according as the places from which they came were situated nearer, either to *Dehli*, or to *Lodiana*.—The average was taken of each division, and, as in the former case, the difference between the maximum and minimum from 1750 to 1835 was divided in 1000 parts. The *Benares* line remained the same as before.—The *Bengal* line was increased by a list from *Calcutta* taken from the 12th vol. of the Asiatic Researches. The last, or southern line (*Jubbulpore*, *Indore*, and *Bhopal*), was increased by the addition of a line from *Dundwala* in the *Panjáb*. The average of the five lines was then taken and the general line traced out in the manner described in the former paper. I have before mentioned the notion that a complete revolu-

tion took place in 56 years, or three cycles. In pursuance of this idea it was intended to described the first 56 years, beginning with 1835, and then to place in a line above them the next 56 years beginning with 1779—so that their parallelism, or the contrary, might be more easily detected. This has been done (see below) for the first 21 years of each period, viz. from 1835 to 1815 both inclusive, and from 1779 to 1759, both inclusive; and it will, I think, hardly be denied that some degree of parallelism does exist between them. In the 35 last years of each period, from 1815 to 1780, and from 1759 to 1723 the irregularities were too great to allow their being placed in a similar manner.—But I have traced out the variations from 1815 to 1780 (see the thin continuous line in the plate from 1815 to 1780), and it will be observed that the principal maxima run thus, 1815, 1806, 1796, 1787.

Now we must consider that it is only by taking an average of different cycles that we can get rid of the effect of such disturbing causes as are only temporary—say, for instance, the inroad of an army, or the decrease of the population. The average therefore of the four cycles 1815 to 1796, 1796 to 1779, 1759 to 1741, and 1741 to 1723, was taken, and this average is represented by the dotted line from 1815 to 1796, and from 1796 to 1779. It appears to be nearly regular, and probably succeeding observations may enable us to make it more correct. The dotted line from 1815 to 1835 represents the average of the two periods, 1815 to 1835, and 1759 to 1779.

Since writing my last paper I have also received a list of corn prices from the *Cape of Good Hope* from 1835 to 1812, and another from *Bickanir* in the desert for the same period. These prices have been added to those of *Dundwala* in the *Panjáb* for the same years and from the average a line has been traced similar to that of fig. 2, Plate, (Journal, No. 64.)

This long and tedious investigation was entered into in the hope that certain useful results might be obtained, and the results that have been obtained do make it highly probable that there is a certain degree of regularity in the revolution of the seasons. If the number of rain-gauges in different parts of the country should be greatly increased, and the prices of corn accurately registered, may we not hope that something more definite may be established, even so far as to enable us to fix the variation which may be due to each particular locality. Nay more, if certain combinations of light, heat, and moisture be conditions essential to every kind of animal and vegetable existence, may we not conjecture that other productions than corn are affected by peculiar

seasons, and that we only need numerous, and long-continued observations, to know when those peculiarities are likely to recur?

P. S. Arguing from what has been to what will be, we might join the two dotted lines in the plate for a conjectural line, the first year of which would be 1836. It would, however, first be necessary to correct the latter part. The two lines of which it is composed 1775, 1779, and 1831, 1835, are both erroneous, as indications of the seasons; the first in a considerable degree, the latter less so. To illustrate this I have added the line of the Calcutta rain-gauge, 1823, 1835, which may be compared with the lines in the plate, Journal, No. 64, and I have other data, which I will arrange and bring forward at a future opportunity.

TABLE I.

Average price of Corn in Northern India, during 4 Lunar Cycles.

Year.

N. B. These numbers were taken from the average of the five principal lines mentioned in the paper, the whole variation in each case having been previously divided into 1000 parts.

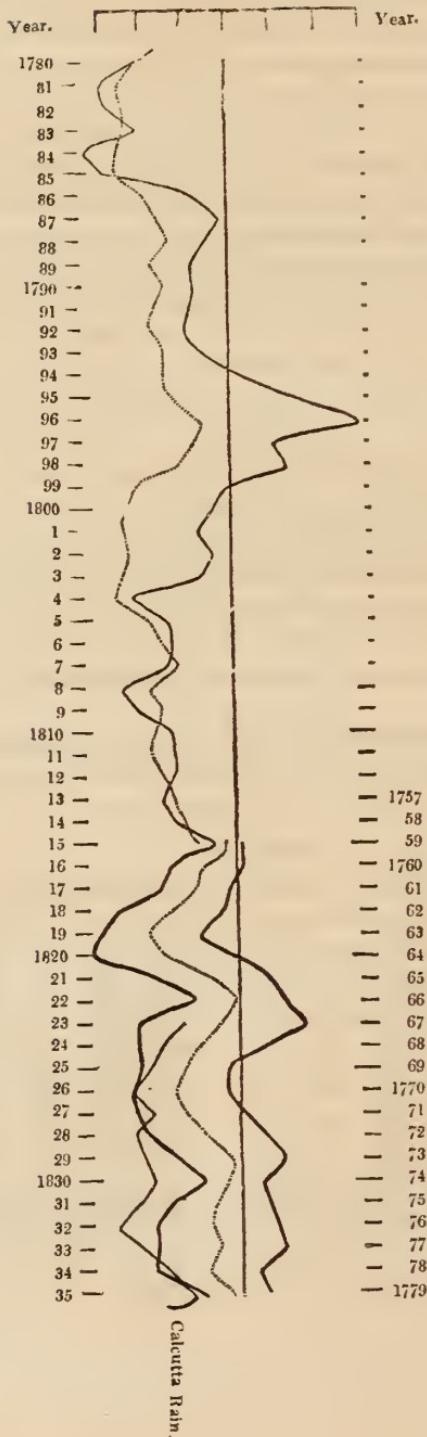
TABLE II.

Average price of Corn in Northern India.

Year.		Year.		Year.		Year.
1835,	404	345	1779.			1768.
34,	306	334	78.		23,	281
33,	312	397	77.		22,	442
32,	312	382	76.		21,	409
31,	341	358	75.		1820,	361
1830,	413	340	74.		188	306
29,	359	395	73.		19,	207
28,	309	340	72.		200	63.
27,	267	306	71.		18,	240
26,	259	267	70.		264	62.
25,	285	275	69.		17,	339
					292	61.
					16,	355
					306	60.
					15,	448
					303	1759.

These two lines are those which are traced on the diagram, and together make up a period of 6 cycles or 112 years.

VARIATIONS FROM THE MEAN.



The upper thick continuous line represents the variations in the price of corn, 1815 to 1835.
The low thick continuous line represents the variations in the price of corn, from 1759 to 1779.

The dotted line represents the average between them.
The thin continuous line represents the variations in the amount of rain at Calcutta.

The thin continuous line represents the variations in the price of corn, from 1780 to 1815.
The dotted line represents the average variation of four lunar cycles, viz., from 1815 to 1789, and from 1759 to 1729.

III.—Table of Indian Coal analyzed at the Calcutta Assay Office, including those published in the *Gleanings in Science*, September 1831, arranged according to localities, extracted from the Report of the Coal Committee.

No.	LOCALITY.	QUALITY.	COMPOSITION ON 100 PARTS.			Calculated per cent- age of Ash in Coke.
			Volatile matter.	Carbon.	Ash.	
1	Burdwan, Raniganj,	Slaty Coal,	1.334	39.5	45.9	14.6
2	Ditto,	.....	8.0	41.5	45.2	24.0
3	Ditto,	.....	8.2	42.8	54.0	22.5
4	.....	Sept., 1831,	1.362	32.8	54.0	24.5
5	Raniganj,	.....	1.450	30.0	51.6	35.6
6	Chirkuri, Jherria, S. of Damuda,	April, 1831,	6.4	37.1	55.2	13.9
7	Adjai—near the foregoing,	April, 1831,	6.3	37.1	61.1	6.4
8	No. 1—from Mr. Erskine, No. 2—	April, 1831,	8.0	32.5	60.0	9.5
9	Benares road—149th milestone,	Oct., 1831,	1.403	4.2	34.0	20.6
10	Near Sone River,	Mar., 1831,	1.396	5.2	37.0	16.0
11	Palamoo,	April, 1831,	1.424	5.9	34.4	44.7
12	Ditto,	.....	1.260	“	Insufficient	20.9
13	Ditto,	.....	1.482	9.1	37.4	10.5
14	Ditto,	July, 1831,	1.419	7.1	36.4	52.1
15	Amarath,	Ditto, 1831,	1.442	7.9	29.4	16.8
16	Bidinigarh,	Ditto, 1831,	1.447	2.8	7.9	14.9
17	Nerbudda—Hoshangabad,	Ditto, 1831,	1.434	2.5	7.2	11.5
18	Nimbuagarh,	Minute Specimen received, April, 1831,	1.260	“	27.0	9.0
19	Sohagpoor,	Slaty Anthracite,	1.831,	“	14.0	22.0
20	Wardana,	Very earthy ditto,	1.833,	3.5	25.0	64.0
21	Rajmhal, Bagalore,	Ditto, 1831,	1.457	7.8	43.8	10.8
	Cuttack—Talcher, best.	Ditto, 1831,	1.540	10.0	32.0	20.5
	Ditto, inferior,	.....	1.250	“	38.7	22.5
	Hingolai,	Glossy, friable,	1.450	“	36.2	40.0
	Ditto, best,	Anthracite Slate,	2.416	16.0	10.0	40.4
	Tacobani, ditto,	Dull with bright seams,	“	1.477	36.4	27.5
	Assam—upper streams,	Ditto,	“	1.223	39.6	10.1
23	.....	Lignite,	1.226	“	32.6	51.2
24	.....	.....	1.196	“	29.6	41.9
25	.....	.....	1.223	“	31.1	21.9
26	.....	Feb., 1831,	1.244	3.8	62.8	74.0
27	.....	“	1.312	15.1	39.9	24.0
	.....	July, 1831,	1.320	19.8	48.4	3.4

Table of Indian Coal,—Continued.

No.	LOCALITY.	QUALITY.	COMPOSITION ON 100 PARTS.		Calculated per cent- age of Ash in Coke.	
			Volatile matter.	Carbon.	Ash.	Ash.
28	Assam, upper streams...	Lignite,	July, 1837,	1.284	51.5	4.4
29	....	.....	"	1.260	51.4	4.7
30	....	.....	"	1.445	5.9	33.9
31	Silhet, Kasya Hills—Chirra, ...	Partly silicified,	June, "	1.392	50.0	44.9
32	Ditto,	Good Coal,	"	1.310	7.0	51.1
33	Ditto,	Shaly Bituminous,	"	1.520	12.3	62.0
34	Ditto,	Lignite,	"	1.330	7.5	53.4
35	....	Brown friable, like peat,	"	36.0	63.6	5.3
36	Laour,	Brown Coal,	"	10.1	44.4	3.0
37	....	Ditto lighter-slaty,	"	2.8	56.8	20.0
38	....	Friable bituminous shale,	"	7.1	42.2	14.5
39	....	Bituminous Shale,	"	2.042	22.0	66.0
40	Ava, Kuenduen River,	Jet Coal,	"	8.0	40.0	5.9
41	....	Lignite,	"	1.363	54.1	9.9
42	Manipur, Tankkick,	Good Coal,	"	5.0	43.0	5.5
43	Arracan, Sandoway,	Lignite,	May, 1833;	1.276	59.3	2.5
44	Syneg Kong,	Coal,	Nov., 1833;	1.361	49.7	11.0
45	Oogadong,	Lignite,	"	6.2	39.3	18.1
46	Phauring,	Silicified Lignite,	"	3.0	66.4	0.6
	Aeng, Capt. Lumsden,	Lignite,	April, 1838;	1.287	37.1	2.4
		Ditto with pyrites,	"	1.445	40.5	3.3
47	Himālaya, Kemaon,	Average of Balia—Herbert,	"	1.330	47.2	28.0
48	Moradabad Hills, near Hurdwar,	Impregnated with pyrites	"	1.963	31.9	...
49	....	.....	"	1.343	35.4	...
50	....	Lignite of Kheri?	1837,	1.453	50.0	14.6
51	Náham,	From Mr. Dawe, Canal Dept.,	"	1.502	51.0	17.9
52	Peshawer—near the Indus,	Bituminous Shale,	"	1.670	21.0	8.8
53	Cutch—Travancore, .....	.....	"	1.343	66.0	14.8
54	Calcutta, boring,	Fossil Seeds, like Almonds,	"	1.900	44.0	14.3
55	400 feet below the surface, ?	.....	"	1.31	41.7	...
56	Gogah, Gujarat ditto, .....	.....	"	1.670	37.0	56.8
57	Calentta Alluvium, .....	.....	"	1.343	62.0	23.8
58	Darjiling—Silkim,	Black peat earth,	"	1.343	59.2	76.2
59	Singapuri Mangrove Wood,	Used in Steamers,	"	0.733	35.1	0.8
				11.0	30.3	18.9

Coals imported into Calcutta, analyzed at the Calcutta Assay Office.

No. D 2	LOCALITY.	QUALITY.		Specific Gravity.	COMPOSITION ON 100 PARTS.		Per cent- age of Ash in Coke.
		Volatile matter.	Carbon.		Ash.		
1	Syrian Coal, Red Sea,	With much pyrites, ..	1838, ..	1.335	42.1	23.7	7.9
1	" New South Wales,	..	1837, ..	2.5	34.2	4.6	7.9
2	V. D. L. Hunter River,	Average of several Specimens, Mr. Craerton's Specimens, Glance Coal, or Anthracite, Imported in	1837,	1.277 1.277 1.360 1.273	37.0 38.0 2.0 3.0	58.4 60.1 1.9 7.0	3.1
3	China,	English Pit Coal,	.. ..	1.282	28.4	64.6	10.8
4	"	"	..	1.282	7.0	91.6	1.4
5	"	"	..	1.273	1.5	69.4	1.6
6	"	"	..	..	29.0	73.0	2.3
7	"	"	on large scale, November, 1836,	..	32.0	73.0	2.6
7	"	"	..	1.270	32.2	64.7	3.1
8	"	"	..	..	29.7	64.7	4.8
8	"	"	..	..	29.7	69.5	0.8
9	"	"	December,	..	35.0	63.6	1.1
10	"	"	..	1.265	35.0	63.6	2.2
11	"	"	..	..	26.5	73.2	0.3
12	"	"	February, 1837,	..	31.8	61.0	0.4
12	"	"	..	1.352	40.5	54.2	11.8
13	"	"	May,	4.1	5.3	54.2	9.8
13	"	"	..	..	34.4	63.8	2.8
14	"	"	June,	..	35.1	62.8	2.1
15	"	"	July,	..	29.1	62.8	3.3
16	"	"	..	1.284	31.5	67.3	1.2
17	"	"	December,	1.4	31.2	67.3	1.8
			..	..	31.2	67.3	2.2
			Average of English Coals, ..	31.0	67.3	1.6	2.4

J. PRINSEP,
Assay Master.

N. B. For Specimens marked 1831, as well as for remarks on the different varieties of Coal, see Gleanings in Science, III. 283.

CALCUTTA, ASSAY OFFICE, }
18th October, 1837.

IV.—Extracts from the Journal of Lieut. MARKHAM KITTOE, submitted to the Asiatic Society at the meeting of the 6th Oct. 1836.—Ruins and Pillar at Jajipur.

[Continued from p. 56.]

Wednesday, 30th November, 1836,—Camp Chuttea. This morning's march, the distance was 14 miles, road good and no less than twenty-two bridges.

Our camp is on an open space near the *Chuttea*, no shelter, the ground so hard that it was with difficulty our tents were pitched, there being a bed of laterite a few inches below the surface ; the village stands on a granite rock, the laterite adheres to and mixes with the granite in a curious manner, the strata of the rock incline at (about) an angle of 45° with the horizon (southward), the rock in such parts where the laterite (which is hard and vitrified having the appearance of brick-kiln slag) rests, is in like manner red and vitrified.

The country to the left of the road is very flat and swampy, the isolated hills alluded to yesterday, have a very strange appearance : it has often struck me as very remarkable, the abrupt manner in which all the hills met with from hence to *Rajmahal* and onwards to the *Sewalik* range, rise from the surrounding plains, in the soil of which at a distance of a few yards only, not a pebble or fragment of rock is to be found, even at very great depths* : it would seem that the whole plains of *Hindustan* had been (previous to their present state) a vast ocean of liquid mud and quicksands which had gradually settled and dried on the receding of the waters that caused its existence.

About two miles from camp, we passed between two high hills, rising abruptly as described : they are covered with dense jungle, there was

* The *Sewalik* range of hills east and west (in the immediate vicinity) of the *Sutlej*, rise very abruptly, from *Kidderabad* near *Rooper* to the *Jumna*, and again between that river and the *Ganges*, shingle and boulderstones are found to a very great depth. The shingle is met with at increased depths from the surface (below the common soil) in ratio as you recede from the foot of the hills towards the plains, shewing I should think, the former existence of a beach, and of the ocean having once washed the *Sewalik* range prior to the formation of the plains. During my travels along the base of the *Sewalik*, and through the *Dhoons* (valleys), of *Dhera*, *Kyarda* and *Pinjore* and to *Nahun*, *Simla*, *Mussooree*, &c. &c. in 1831, I could not help observing the peculiar manner in which the strata of shingle and boulders in some places rest, commencing at the base of the high ranges and passing under the valleys over the *Sewalik*, there dipping down on the southern face into the plains (vide sketch A). The cavities in the higher mountains being likewise filled with debris would lead one to suppose that at some remote period an ocean had shifted its position from the northern regions beyond the *Himālaya* to the southern.

indeed a great deal of jungle nearly the whole way, to the right of the road, but low land and rice fields to the left.

To the northwest of the village is a very large tank and a high mound around it, on which there are traces of there having been buildings in former years. The tank swarms with alligators and is overgrown with solah and purene (water-lily). The mounds are now covered with jungle and brambles. I remarked a figure of Buddh under a large banyan tree, it was all besmeared with sendoor (red lead) and worshipped by the villagers as the thakoor (*Mahadeo*) ; there were other pieces of sculpture scattered about in different directions.

Thursday, 1st December, 1836.—Camp Tanghee. Distance this morning $5\frac{1}{2}$ miles, bridges 15, road good ; our camp was pitched a furlong to the right of the road, on an open space near the village, beside a tank : there is not sufficient shelter here for a whole regiment, though ample, for smaller detachments.

There are two remarkable mounds to the east of the village and left of the road, they go by the name of *Kenchuc Dhee* and (by some) *Asurá-ka Dhee* or *Tangee* both of which words, imply a "mound;" the natives say that many centuries ago, in the time of the Devatas, a dæmon (*Asura*) named KENCHUC constructed a fort here in which he used to reside : such mounds as these are very common in Upper India and are ascribed to like causes*.

I should observe that *Keechuc* or *Kenchuk* of itself means a dæmon.

I saw several fragments of sculpture under the banyan and peepul trees round the village, also some mutilated figures of Buddh.

A large tree as well as a mound, always attracts my attention and I invariably ride up to every one I see, when I am able to do so, as it is under such trees, that many curiosities are to be seen throughout India : for it is a general custom when any sculptured stones, idols or else are found in digging or by other accident, they are placed under the sacred peepul or burr.

There is a very fine view to be had of the surrounding country from the top of *Keechuc Dhee* (where there is a small bungalow); the country to the right (facing *Cuttack*) is woody with continuous ranges of high hills which have a grand appearance. To the left, are extensive plains with a good proportion of trees on them, as far as the eye can reach ; the mangoe topes at *Cuttack* are clearly visible at about eight miles in a direct line due south.

* I would call the attention of all antiquaries and collectors of ancient coins to such mounds as these so common in the *Doab* and in the vicinity of *Mathura* and *Delhee*, such as *Paniput*, *Soonput*, *Bâghput*, or many other "puts" or "prastas,"

There is a market held occasionally at *Tanghee* where brass utensils, coarse cloth, and shoes are sold, chiefly brought from *Cuttack*; the village is a tolerable sized one, there is a police thana : it is in the *Mogulgundee* and in the pergunnah *Kokakund*.

* * * * *

Cuttack, Friday, the 2nd December, 1836.—We commenced our march at 4 o'clock, and did not reach our camp (which was pitched under the east face of the fort on the river side) till ten o'clock, our hacke-ries did not arrive till very late, owing to the very long and heavy drag through the sand of the Mahánuddee, a distance of two miles.

Owing to the river not being fordable at the regular ghát, we were obliged to go more than three miles to the left off the direct road on reaching *Chaudwár*, and cross over at the ferry three miles below the fort, nearly opposite *Chowlea gunge*.

The road was very good as far as *Chaudwár* where we turned off and passed over the ruins of that ancient city, which extend for many miles. There are very few ruins above ground, but the foundations of many are visible, particularly of the walls and moat which was faced with stone ; there are numerous reservoirs also, and the remains of temples ; the stone was removed in former years to build the fort of *Cuttack* and the revetment ; it is chiefly mottled red iron clay called laterite by mineralogists and mookura by the natives ; it is a curious substance and has the appearance of vitrified clay and other earths of various colors, red, black, yellow and brown, with fragments of every description of rock imbedded in it, in greater quantities nearest the hills ; it has much the appearance of brick-kiln slag, and seems to have been caused by sudden immersion into water while in its fused state, the beds of this mineral are usually near the surface of the soil, and average in thickness from 10 inches to 10 and 12 feet and even more in some localities. I have observed frequently thin coats adhering to the rocks and bases of the hills, either rising from, or bordering on, the plains ; in such localities it is much more vitrified and consequently harder than that which is found resting on marl : it also contains (as I have before said) a greater proportion of fragments of quartz, granite, sand-stone, &c. &c. But to return ; *Chaudwár*, the southern face of this ancient city is, and ever has been washed by a branch of the Mahánuddee called the *Biroopá*, the walls along the river face are in many parts still in existence, the present village of *Chaudwár* is close to them.

STIRLING makes but little mention of this curious place, he calls it “*Chauwár* or city of four gates,” it should be “*Chaudadwár* or city

of fourteen gates," if I may rely on the local authorities; history does not inform us when and why this once extensive city was abandoned, but there is a legend told by the Ooriahs, that the place was never finished, that while it was being built, and near completion, the rāja one day went out hawking and let his hawk at a small white heron; they flew across the Mahánuddee, when both alighting on the opposite bank, the heron killed the hawk; the rāja upon this consulted his learned men and astronomers, who pronounced that it was a warning to abandon Chaudwár and to build his fort on this more auspicious spot: he accordingly built the present fort of Cuttack upon it and called it Bārahbattee: he then forsook Chaudwár which was never after resorted to.

We remained at Cuttack several days, the fort (*Bārahbattee*) being the first object that attracted my notice. I shall first describe it, or rather, what is left of it; for it is fast disappearing, the stones being taken for various public works; the greatest drain has been for the lighthouse at False Point and for the macadamizing the cantonment roads.

The figure of the fort deviates little from a regular parallelogram having its longest faces to the north and south, the river running parallel with the former at a short distance from it.

The walls were originally defended by high square bastion towers, projecting at different distances; the place could never at any time have offered much resistance, as the walls were barely five feet thick on the three land faces, which a six lb. shot could have perforated, except on the river face, where they were not only of great height but of proportional thickness with numerous square bastion towers; the broad and deep moat faced with stone, was what the natives depended upon as their chief defence, before the invention and introduction of artillery; there is only one gateway and that in the centre of the eastern face; it is narrow and between two square towers, like the others, wide at the base and decreasing toward their summit; the archway is of comparatively modern date, and is the work of the Mogul governors of the province: there was an inner gateway which has been lately taken down to build the lighthouse with. This part of the structure, with several adjacent buildings, were the work of a Mahratta governor in the 4th year of the reign of MAHOMED SHAH, which I found thus recorded on a small stone neatly cut which was let into one of the walls.

سنه يكهزار و يكصد و شصت و پنج هجري مطابق سنه چهار
جلوس احمد شاه بادشاہ غازی

In the year of the Higera one thousand, one hundred and sixty and five, coeval with the 4th year of the reign of AHMUD SHAH the victorious king.

Over the archway was another inscription which is in the possession of the executive engineer: it was thus.

ز حشمت و شوکت رگبیدر نامی خراج اقلیم ها گیرد دوامی
 خوشان کنور که موہن سندگه بهادر زبانش معدن جود است و کامی
 چوشه مشیر گیرد گهه کار زار به پیش اوچه رستم زال چه سامی
 ز حکمه ش کلده دار افغان امام بتعییر خوش باره باتی تمامی
 همین فکرد ارد چه صبح چه شاهی زیهر هلاک عدویش دود امی
 قلعه آهندی پر خندق نهنگان جهان دیده داروغه سان کن گرا
 مورخ علی رضا در اهتمامی که رگبنا تهه دروازه قایم مدامی
 رهاتف بپرسید تاریخ گفتا

It is certainly not a very elegant composition, indeed native judges pronounce it execrable and unintelligible: the following is as correct a translation as I can make.

" From the splendor and state of one named RUKHBEER; may he ever possess the revenues of foreign countries. What an excellent prince was MOHUN SINGH BEHADUR*. His speech is a mine of desire and beneficence.

" When in the time of need he takes up his sword, what are RUSTUM, ZAL or SAMEE before† him. By his order the *Killadar* IMAM AFGHAN (KHAN), occupied himself night or day with the care of putting fort *Barahbattee* wholly in excellent repair, with a gateway and tower to it mountain high. This fort first of iron, next a ditch filled with alligators, is at once a double trap for the destruction of its enemies.

" The experienced daroga ALLEE RUZA native of *Kurrá* as chronologist, employing himself to find a date asked it of the hidden sound (voice) which replied, May the *Rughnath* gateway ever remain permanent."

I cannot discover who were the individuals whose praises are thus recorded, unless they were some of the officers of the Mahratta government; I can neither find the name of RUKHBEER nor of MOHUN SINGH, in STIRLING'S work.

* Perhaps MOHUN SINGH was son of RUKHBEER? the passage is obscure to me as well as to Moonshees I have shewna the verses to.

† Opposed to.

In the year 1174, A. H. which the last line gives by the rules of the *abjîd*, the province of *Cuttack* was in the hands of the Mahrattas, under BABAJI NAIK. If the date, on the other hand refers to the Amli year 1174, which answers to A. D. 1765, or thereabout, it was during the administration of BHOWANY pandit, the Mahratta governor of plundering notoriety who succeeded SHEOBHAT in 1171 Amli*. The persons thus mentioned may have been the military governors, under either of these supreme rulers.

On our taking possession of the fort in 1803, the ditch was drained and the numerous alligators destroyed or allowed to escape into the river : there are but few to be seen at present and none of any size.

The walls and other masonry are of laterite and sandstone, most of the towers are faced with the latter. The most striking object is the cavalier, which is I suppose the "mountain" alluded to in the inscription, this has evidently had a subsequent facing of sandstone added to it and forms a part of the original "gurh or keep of the castle."

There is an old mosque with no pretensions to elegance, the work of the Mogul occupants.

The candelabra mentioned by MR. STIRLING has been removed to a garden in *Chowleegunge*, it is a *chirágdán* about 15 feet high and of mogunee or chlorite ; being an octagonal pillar $1\frac{1}{2}$ feet at its base and about 10 inches at its summit on which is a vase the shape of a lotus, but intended to hold a "tulsee" plant, it is not one shaft, but a number of layers about 10 inches deep, each having four brackets projecting out of four of the sides of the octagon, and every other layer having its brackets on different faces so as to allow of one blank every way between each bracket ; it is of modern workmanship and belonged to a temple built by the Mahrattas which was pulled down many years ago, and was used for illuminations at the Dewalée festival : there is another very like it, before a temple, in the cantonment by the river side, also built by the Mahrattas.

* * * * *

The town of *Cuttack* is very straggling ; there are a number of very good houses of hewn stone and brick, but mostly in very indifferent repair from the poverty of their inmates.

The principal building is the "Kuddum Russool" in the suburbs, over the gateway of which is the following inscription.

بدرگاه خدیو دو جهانی مرتب گشت نوبت خانه دین
پناہ عالم انسی و جانی بعهد شاہ عالم گیر ثانی

* Vide STIRLING'S Orissa, As. Res.

چو فرزند مصالح دین محمد بدرگاه نبی این قصر آراست
که دیدار علی نامش بدانی خدا حاصل کند مقصود جانی
سؤال سال تاریخش چو کردم چو ظالم کفر را سرشکنی زد
سروش غیب گفت از مهر بازی زنوبت خانه این سان خوانی

سنه ۱۱۶۹ هجری

The building in which are placed the sacred relics, has no pretensions to elegance of design : the enclosure and the ground surrounding it is chiefly used as the common burial place for the moslem inhabitants. The Peer-zadas or priests, make a tolerable profit in sickly seasons as they charge from 1-4 to 2 and 3 rupees for each grave dug. The foregoing inscription alludes simply to the gateway and music gallery over the same ; it appears to have been built in the year A. D. 1755, when the province of *Cuttack* was in the hands of the Mahrattas. I cannot ascertain who the individual "DEEDAR ALLEE" was, or what office he held at *Cuttack*, it is however immaterial, the building is not worthy of notice. The following is a translation of the verses.

"At the shrine of the Lord of both worlds, the asylum of human beings and of the Jins, the music gallery of the faith was constructed, in the reign of ALUMGEER SANI, (ALUMGEER the 2nd.) If the offspring of the good in the faith of MUHAMMAD, know that his name is DEEDAR ALLEE, at the shrine of the Prophet he erected this palace, may the Lord grant the wishes of his heart. When I asked the year of its date, the hidden angel (voice) replied with condescension, 'When the king broke the heads of infidels, read the year (in)' 'of the music gallery of the faith,' (year of the Hegira 1169.)'

The Jumma Musjid in the principal street is also a very clumsy inelegant building : it is used as much as a school as for a place of prayer. There is now scarce any thing remaining of the palaces of the *Láll-bág*. The Hindu temples are all small and inelegant and none of any antiquity ; there is however one temple of large dimensions which has never been finished, it was commenced by one of the Mahratta governors who did not live to complete it : it is about 70 feet high. The largest dwelling houses are those of the former ámils and governors, they are all fast falling to the ground.

There appears to be very little trade carried on in *Cuttack*, the chief manufactures are brass cooking utensils, and shoes for which the place is famous.

The soil of *Cuttack* is sandy and very poor : rice is the only cultivation, the gardens are consequently very inferior.

V.—*On a remarkable heat observed in masses of Brine kept for some time in large reservoirs.* By G. A. PRINSEP, Esq.

In the course of my experiments of several years in the manufacture of salt at *Balya Ghát*, on the salt-water lake east of Calcutta, I have sometimes observed a high degree of temperature at the bottom of the brine reservoirs after they had been filled for some weeks with brine of less than one fourth saturation. But as the greatest heat observed did not exceed 104° Fahr. which was under the maximum heat of the brine on the terraces, whence the reservoirs had been filled, I supposed the high temperature to be merely that of a warm stream of water let in at the hottest part of the day in May or June, and remaining below and unmixed with the cooler surface water, of less specific gravity, afterwards admitted. This opinion was strengthened by the gradual reduction of the temperature below to nearly that of the surface, before the end of the rainy season. I have frequently bathed in one of the reservoirs (about 550 feet long, 35 ft. wide at top and 7 or 8 feet deep), in September and October, and have found the temperature of the water then pretty equal throughout. But on plunging into the same reservoir on the 17th September last, I was surprised to find the temperature near the bottom so warm as to be intolerable to the feet. Still however I imagined that the heat was only that which the sun had imparted to the terrace brine in the very sultry weather of June last, when I had 120° registered (4th June, 4 p. m.) for the brine of a terrace yielding salt: and believing the hottest water to be therefore near the bottom I tried the temperature there about a month afterwards by immersing an empty bottle at the end of a bamboo, fixing the mouth so that it would be filled about a foot from the ground. The contents when poured out were at the temperature of 120°. A similar experiment made on the same day in a circular brine reservoir at *Narainpore* (120 feet diam. and about 16 feet deep) gave 104°. But on a subsequent visit to *Narainpore* on the 29th October, I was startled to observe that a pump fixed against the wall of this reservoir, for the purpose of feeding the boilers, was actually bringing up water of the temperature of 130° from a depth of about 12 feet. This very unexpected discovery determined me to contrive an instrument that should serve as a probe to ascertain both the temperature and the specific gravity or saltiness of the water at different depths. Annexed is a drawing of the instrument employed: it consisted of a split bamboo with bamboo buckets fixed between at distances of one foot from centre to centre, the mouths of the buckets being corked but the corks having small air-holes; and the mode of using the machine was, to let it down with the mouths of the buckets downwards, and then turn it round after which the air bubbles indicated the progress

of filling and in ten minutes or a quarter of an hour, when these disappeared, the machine was quickly drawn up and the temperature of the water in the buckets was tried rapidly in succession with a small thermometer, leaving the specific gravity to be tried afterwards.

On the day of the first trial of this probe I was favored with the company and assistance of Dr. HUFFNAGLE, who took a lively interest in the experiment. The following particulars are the results of all the trials I have yet made with it, the buckets being numbered from the bottom of the machine.

First Experiment, 5th November, 9 A. M. *Fourth Experiment, 19th November, 2 P. M.*
Open long reservoir at Balya Ghât,
at Narainpore.

Probe immersed at an angle of 45 or 50°. Open round brine reservoir southwest side. Probe at angle 60°.

No. Temp.	No. Temp.
1 106 only $\frac{1}{4}$ full.	1 104 (appt.) S. G. 1150 at T. 102
2 120 S. G. (appt.) 1077 at T. 117	2 108 " not full.
3 120 $\frac{1}{2}$ " " 1073.5 " 116 $\frac{1}{2}$	3 108 $\frac{1}{2}$ " S. G. 1150 " 106
4 113 " " 1071 " 110	4 114 " " 1148 " 112
5 99 " " 1049 " 97	5 125 " " 1166 " 120
6 80 " " 1022 " 80	6 132 " " 1151 " 124
7 78 $\frac{1}{2}$ " " 1022 " 78	7 136 " " 1142 " 127
8 78 " " 1021 " 78	8 133 " " 1125 " 128
9 78 " " 1023.5 " 78	9 127 " " 1095 " 120

Second Experiment, 5th November, 2 P. M. *at Narainpore.*
Open round brine reservoir. Probe at angle about 60° southwest side.

No. Temp.	No. Temp.
1 105 (appt.) S. G. 1163 at T. 100	13 90 " " 1047 " 90
2 104 not full.	14 83 " " 1046 " 83
3 106 (appt.) S. G. 1140 " 104	15 81 $\frac{1}{2}$ " " 1045.6 " 83
4 113 " " 1160 " 108	16 81 " " 1045 " 83
5 117 " " 1161 " 113	17 82 " " 1045 " 83
6 123 " " 1157 " 117	<i>Fifth Experiment, same date and place.</i>
7 130 " " 1159 " 123	Covered reservoir. Probe at angle about 70°.
8 132 " " 1153.5 " 124	No. Temp.
9 137 " " 1145 " 130	1 88 (appt.) S. G. 1147
10 131 " " 1121 " 125	2 88 " " 1124.5
11 127 " " 1100 " 120	3 90 " " 1107
12 122 " " 1090 " 114	4 91 " " 1107
13 114 " " 1075 " 109	5 90 " " 1102.6
14 104 " " 1065 " 101	6 90 " " 1094
15 100 " " 1065 " 97	7 89 " " 1081
16 85 " " 1040 " 84	8 88 " " 1078
17 84 " " 1044.3 " 83	9 87 $\frac{1}{2}$ " " 1069
18 82 " " not full.	10 — empty.
19 82 " " 1038 " 81	11 82 " " 1054

Third Experiment, 5th November, 2 $\frac{1}{2}$ P. M. Same place and reservoir east side at gate. Probe at angle about 75°.

No. Temp.	No. Temp.
1 102 (appt.) S. G. 1149 at T. 100	14 76 " 1046
2 106 " 1145.3 " 103	15 76 " 1046
3 109 " not full.	<i>Sixth Experiment, same date and place.</i>
4 114 " S. G. 1175 " 111	Large reservoir. Probe at angle about 80°. Tried at 2 $\frac{1}{2}$ P. M.
5 119 " " 1165.5 " 116	1 93 $\frac{1}{2}$ (appt.) S. G. 1070
6 128 " " 1159 " 124	2 93 $\frac{1}{2}$ " " 1070
7 137 " " 1153 " 130	3 93 " " 1069
8 133 " " 1139 " 128	4 92 " " 1067
9 135 " " 1125 " 127	5 91 $\frac{1}{2}$ " " 1064
10 127 " " 1097 " 120	6 90 " " 1064.5
11 114 " " 1075 " 109	7 87 " " 1057
12 105 " " 1068 " 101	8 85 " " 1056
13 92 " " 1050 " 90	9 84 " " 1050
14 86 " " 1040 " 84	10 84 " " 1050.5
15 82 $\frac{1}{2}$ " " 1038 " 81	11 84 " (not full). " "
16 81 $\frac{1}{2}$ " " 1037 $\frac{1}{2}$ " 81	12 84 " " 1050

Seventh Experiment, 3rd December, 2 p. m. at Narainpore.

Open round reservoir, tried in the centre, probe nearly perpendicular.

No. 1 T. 107 half full.

2	110	apparent S. G.	1151	at T.	106
3	114	"	1150	"	110
4	118		1143.5	"	118
5	125	half full.			
6	124	"	1114	"	116
7	116	"	1095	"	112
8	105	"	1078.5	"	103
9	96	"	1063.5	"	93
10	92	"	1059	"	90
11	87	"	1054		
12	86	"	1053.7		
13	84	half full.			
14	82	"	1052		
15	81	"	1053		
16	82	"	1052		
17	82	"	1051		

In the first trial at *Narainpore* the greatest heat was found about half-way from the bottom. The difference in that respect at *Balya Ghát* where the greatest heat appeared at the second and third foot from the bottom may be explained, by the small depth of the reservoir at the latter place, the surface water being liable to be affected to the same depth in both by the wind and rain and temperature of the atmosphere, and the subsequent descent of the maximum heat at *Narainpore* is attributable in part to the expenditure of the brine there being pumped out from near the bottom for the supply of the boilers. The highest temperature given by the probe at *Narainpore* was 137°, but this is 5° less than the maximum given by the pumps, as will be seen by the following statement.

29 Oct.	N.	pump T.	130	S. G. (corrected)	1180
12 Nov.	"	"	138	"	1170
19	"	"	142	"	1162
26	"	"	140½	"	1152
3 Dec.	"	"	137	"	1133 S. Pump 134 S. G. 1172
10	"	"	124	"	1173 " 124 " 1158
17	"	"	125	"	1153 " 124 " 1175
24	"	"	119	"	1173 " 116 " 1171
31	"	"	116	"	1174 " 114 " 1179
7 Jan.	"	"	102	"	1133 " 106 " 1128
13	"	(sunk 2 feet)	104	"	1177 " 100 " 1132
4 Feb.			90½	"	1100 " 92 " 1119
10	"	.....	.....	.....	90 " 1110

As the temperature of 90° was only about the mean of June, and also that of the lower moiety of the brine in the covered reservoir on the 19th November, which was all nearly of an equable temperature, I consider the influence of the heating course to have ceased in the first week of February, if not before. The reservoirs have since been pumped dry and therefore these experiments cannot be repeated, until they are replenished with brine in April or May next.

It is remarkable that the probe indicated no signs of a heating influence affecting the water in the large reservoir at *Narainpore* on the 19th November though the specific gravity of the brine near the bottom was little less than that of the water in the long reservoir at *Balya Ghát* on the 5th November, its mean spec. grav. being also considerably higher than the mean of the latter. Moreover the heating influence was scarcely traceable in the covered brine reservoir at *Narainpore* on the 19th November, which perhaps may be accounted for by the large previous expenditure of brine, say about three-fourths of its original contents, the consumption of which had been replaced to within a foot of the general level by filtration from the ground and leakage at the gate communicating with the adjoining terrace and brine fields; whereas the expenditure of brine in the contiguous open round reservoir otherwise similarly situated, was but half of the original contents up to the middle of January, its entire volume being about 170,000 cubic feet, while the covered reservoir contained only about 50,000. In these two reservoirs all the brine when first let in was of a high degree of saturation, ranging from 1170 to 1200 sp. gr. and consequently containing little or no sulphate of lime, which ingredient in the composition of sea water, I have observed at *Balya Ghát*, is always deposited upon the terraces there, considerably before the brine begins to deposit its sulphate of soda. But this was not the case with respect to the brine in the large reservoir at *Narainpore*, nor in that of a longer narrow one at *Balya Ghát*, except perhaps a small proportion of the latter, both of which were charged with brine of only 1070 to 1085 sp. gr., a much higher degree however than that of the contents of the long reservoir in any previous year; and in both of them the water had remained undisturbed, except by the action of the atmosphere; yet in one of them a high degree of heat was observed, and in the other where I should sooner have expected to find it, no indication of heat was perceived beyond the probable temperature at which it was filled in June.

In order to ascertain however whether any fermentation and disengagement of heat takes place on the mixture of saturated brine with brine of a weaker degree, I lately procured from *Balya Ghát* some bottles of brine of different degrees of saturation, with which the following experiments were tried.

1st Experiment.—Half a pint of saturated brine sp. gr. 1216, temperature 82.5 mixed with about the same quantity of brine of sp. gr. 1069, temperature 81.2. Result, temperature 82.2 and no effervescence after standing some minutes.

2nd Experiment.—Same quantities of brine sp. gr. 1216, tempera-

ture 82.5, and of brine sp. gr. 1091, temperature 81°. Result, sp. gr. 1152.5, temperature 82.2 and no effervescence.

3rd Experiment.—Same quantities of brine sp. gr. 1216, temperature 82.5, and sp. gr. 1135, temperature 81.6. Result, sp. gr. 1174.3, temperature 82.1 and no effervescence, nor any increase of temperature after remaining some hours in the glass.

Being therefore quite unable to offer any explanation of the cause of the remarkable heat observed in my brine reservoirs, I can only promise to register the temperature from time to time when they are filled again in the hope that materials may thus be furnished to some scientific friend more capable of solving the interesting problem. If it should be discovered that a slow fermentation arising from the mixture of brine of different densities in large masses is the cause of this heat, it would seem to be accelerated by agitation, for the water raised by the pumps was always warmer than that which the probe brought up from the same depth; and, except at the first trial at *Narainpore*, always hotter than the maximum given by the probe.

VI.—*On the Land and Fresh-water Shells of the Western Himalaya.*
By Lieut. T. HUTTON, 37th Regt. N. I. and W. H. BENSON,
Esq., C. S.

The following catalogue chiefly refers to shells which I have lately discovered, almost all inhabiting the western portion of the *Himalaya* in the neighbourhood of *Simla*, and extending upwards from *Monimajra* at the extreme verge of the hills, to the *Burenda Pass* on the Snowy range. In the description of the various species, I have availed myself of the valuable assistance of Mr. BENSON, C. S. whose extensive collection of terrestrial and fluviatile shells from all parts of the world, and whose greater experience in this branch of natural history, have enabled him to do more justice to the subject, than I could have done without assistance. In order, however, that each may in some measure stand responsible for his contributions, an initial letter will be found affixed.

Although most of the shells belong to the hills, a few were collected on the route from *Neemuch* in the cold season of 1835-6.—“The most interesting of these acquisitions is an unique specimen of an ‘*Ancylus*’ the first of this Patelliform genus yet discovered in India, if not in Asia*.” It occurred adhering to a dead specimen of *Paludina Bengalensis*, in the *Kali Nuddi* at *Bolund Shehr*.

It is interesting to observe the wide distribution of these tender beings, and to trace the gradual and almost insensible yielding of one species to another as the elevation or the climate varies. The shells of our lowland provinces, for descriptions of which we are chiefly indebted to Mr. BENSON, here give place, as the temperature becomes cooler, to forms more nearly resembling those of Europe, some still advancing a short way into the hills, but impatient of the chills of our mountain winters, confining themselves to the valleys of the lower ranges around *Subathu*.

One species, however, the "*Nanina vesicula*" described by me as "*Helix 29*" in the third volume of the Asiatic Society's Journal, as occurring between *Neemuch* and *Mhow*, and since discovered by Mr. BENSON in the *Rajmahal* range, seems alike to defy the heats of the provinces and the winter of the hills, ascending even beyond the height of 10,000 feet above the sea. It ranges therefore over the central and western tracts of this presidency, and occurring in profusion along the verge of the hills at *Mansir Débi*, mounts to *Subathu*, *Simla*, and *Hattú* mountain, preserving everywhere the same habits, creeping over every plant and shrub during the rains, and concealing itself beneath stones and at the roots of trees, with the aperture closed by an unattached calcareous operculum. From its occurring on *Hattú*, it is probable that it may be met with at inferior elevations throughout this portion of the hills.

Another species, the "*vitrinoides*" of DESHAYES, inhabiting the *Rajmahal* range, and extending also to the western frontier, advances upwards only to *Subathu*, and its neighbouring valleys, passing at *Simla* into a strong variety possessing the same form, and partaking of the same habits and general economy.

"*Succinea crassiuscula*," (BENSON,) has also a wide range and is apparently to be met with throughout the provinces, occurring abundantly, according to Mr. BENSON, in the compound of the Asiatic Society's Rooms in Calcutta, extending through *Bahar* and *Allahabad* to the western frontier, and advancing to the hills as high as *Subathu*.

With the exception of "*Nanina vesicula*" the shells we are about to describe, appear to be peculiar to these hills, differing in toto from those of the *Sylhet* collection, yet with them forming that beautiful connection, which is seen to pervade all nature.

In giving *Subathu* as the probable boundary beyond which the species of the provinces do not occur, it must be borne in mind that I would be understood to mean, not that they are never found more in the interior of the hills, but simply that they do not rise to a greater

elevation, for where the temperature assimilates to that of the plains, there may we expect to find the plants and animals adapted to it. Such an expectation is, at least, fulfilled, in the portion of the hills I have been fortunate enough to visit; thus for instance at *Rúrú* about 5000 feet above the sea, in the valley of the *Pabbar*, where the temperature in the summer months is somewhat high, plants which flourish abundantly around *Neemuch*, are intermingled with others peculiar to the hills, and again around *Subathú* at an elevation rather beyond 3000 feet, that beautiful flower the "*Gloriosa Superba*" and many species of convolvulus, so common in the jungles of *Meywar*, are seen, as well as the bhéla, bamboo, and other plants of the provinces, surrounded by the vegetation of the mountains. Thus, then, at elevations where the plants of the hills and plains are seen mingled together, it is natural to look for a similar fact in the animal kingdom. And with regard to the Mollusca we shall find it so.

Yet though we find some species common to the plains extending far into the hills, there is nevertheless a well marked line of elevation beyond which the welfare of the general number forbids them to pass. Thus, while "*Nanina vesicula*" is found roaming throughout the hills, apparently at all elevations up to 10,500 feet, other species which in the plains of India are found in company with it and at the same seasons, never mount beyond a third of that height, confining themselves to the warmer valleys at about 3 to 4000 feet above the sea. Among these are "*Nanina vitrinoides*" and "*Succinea crassiuscula*" which around *Subathu* are found in company with species peculiar to the hills, such as "*Helicarion cassida*" and "*Pupa pulchella*" which are never found in the plains, while the former are not met with in the higher and colder hills. To this region also, "*Pupa pulchella*" would seem more properly to belong.

Here then we have a well marked frontier line of elevation, rich in the plants of hills and plains and producing a species peculiar to itself, separating, as it were on either hand, the animals of the highlands and the lowlands.

"When temperature, says LYELL, forms the barrier which arrests the progress of an animal or plant in a particular direction, the individuals are fewer, and less vigorous as they approach the extreme confines of the geographical range of the species."—"In almost every district, especially if it be mountainous, there are a variety of species the limits of whose habitations are continuous, some being unable to proceed further without encountering too much heat, others too much cold. Individuals, which are thus on the borders of the regions proper to their re-

spective species are like the outposts of hostile armies, ready to profit by every slight change of circumstances in their favour, and to advance upon the ground occupied by their neighbours and opponents*.—T. H.

No. 1. *Helicarion cassida*, HUTTON.—Testa ovato-depressa, pallide corneâ radiatim striolata, junioris epidermide sericea, aetate nitore orbata, anfractibus (penultimâ etiam intra aperturam) ventricosioribus; aperturâ patulâ, rotundato-ovata; spirâ convexâ, apice exsertiuscula, minine obtusatâ, anfractibus 5 velociter crescentibus.—(B.)

Greatest breadth 1 inch 2 lines.

This shell has a more exserted spire than any other species known to the writers. This character, notwithstanding the great size of the aperture, coupled with the ventricose appearance of the penultimate whorl within the aperture, gives the shell an Heliciform air. It is very closely allied in habit to a species lately received from *Almorah*, but differs from it in its greater size and paler color, and in the want of the polish which is observable in the *Kemaon* shell. It equals in magnitude the *Sylhet* “*Vitrina gigas*,” from which singular Macrostomatus species it altogether differs in form.—(B.)

At *Simla* it is not uncommon during the rains, or even after heavy showers at other seasons, creeping out from the holes of stone walls and the crevices of rocks with the grey colour of which its own hue assimilates so much when concealed by its mantle, that it is not easily discovered. It occurs from *Bhar* to *Simla* but most abundantly between the former place and *Subathû*.

Animal varying in colors, sometimes pale brownish, at others dark grey. Two broad leaf-like processes running to a point, are spread over the shell when the animal is in motion, so as entirely to conceal it, and presenting the appearance of a large grey slug with a hump-back; a fleshy anal horn, as in the genus *Nanina*; foot very long; tentacula 4, the superior pair longest, buttoned at the tips and bearing the eyes. Orifice on the right side below the leaf-like process.

Shell large, of 5 whorls, ventricose, suddenly increasing, the body whorl forming nearly all the shell. Transversely wrinkled by the lines of growth; aperture transverse, ovate, broader than long, discovering the previous whorls; margins acute, interrupted on the body whorl. Epidermis varying in colors from yellowish to olive green. In young specimens lustrous when placed on its spire, the aperture appears as if the pillar lip had been obliquely sliced off. The animal carries the shell horizontally on its back, the spire pointing upwards.—(H.)

* LYELL's Geology, vol. II. page 172.

No. 2. *Nanina vitrinöides*, DESHAYES.—This species occurs in the *khads* or valleys around *Subathú*;—at *Simla*, there is found a variety with a rib-like incrassation within the aperture like many of the specimens of another variety found in Bengal. It attains a large size, and the animal is of a dark-green color. It is scarce at *Simla*, and is found only on very wet rocks in the *khads*, keeping up the character which it bears in the plains of being essentially a moisture-loving snail.—(H. and B.)

No. 3. *Nanina monticola*, HUTTON.—“Testâ subdiscoideâ, pallidê vel saturatè brunneâ, epidermide radiatim et concentricè rugosulâ, spirâ depresso-conoïdeâ, apice obtusatâ; periphæriâ minimè angulatâ, suturis leviter impressis, aperturâ transversâ, lunatâ, labro costâ interni submarginali albidâ munito.”—Diam. 1.75.—(B.)

“Umbilicus as in the genus. The shell has a very moderate polish and is sufficiently distinguished from ‘*vitrinöides*,’ on the one hand, and from ‘*decussata*’ on the other by the radiating wrinkles interrupted by concentrically disposed depressed lines, which give the surface of the shell a rough aspect, very different from the finely decussated surface of ‘*decussata*.’ Mr. BENSON has specimens of a variety of ‘*vitrinöides*’ taken in Bengal, resembling ‘*N. monticola*’ in form and in the internal rib of the aperture, but well distinguished by the want of the rugose surface, which appears to have been as it were, planed away to the base of the depressions. The larger specimens of ‘*N. monticola*’ obtain a considerable thickness, and there are visible three or four internal varices at various distances, occasioned by the ribs at the apertures of former growths.

“Lieut. HUTTON has observed the dark and light colored varieties in *coitu*, and has remarked that the latter were those which were fecundated. The eggs which were deposited in rotten wood, were oval and greenish white, and about the size of a mustard-seed.

“The color of the animal is a dirty brown. The dark-colored variety is the more frequent of the two, although both occur of every size. They are abundant at *Mahássú* under fallen timber, and in the rainy season they climb the stalks of plants, feeding upon the leaves. The largest specimens occur at *Hattú*, among the ruins of the old forts which crown that mountain. Young specimens were met with among junipers at *Liti*, at an elevation not much under 14,000 feet.”—(B.)

No. 4. *Nanina splendens*, HUTTON,—“Testâ discoideâ, purpureo-brunneâ, politâ, leviter concentricè et radiatim striatâ, striis radiatis remotis, illis confertissimè dispositis; spirâ vix elevatâ; anfractibus sep-

tem, (apicē omissā) arctè convolutis; aperturā lunatā, labro strigā in-crassatā interni distante munito."—Diam. 0.65.—(B.)

Animal as in the genus; the color a dark verdigris green.

This beautiful species is found in great abundance in the forest of *Mahássú*, beneath fallen timber, and in the hollow trunks of decaying trees; it is also plentiful at *Fágú* and *Ndgkunda*, at 9,016 feet, and has been met with at *Hattú*, at 10,656 feet. All these places have a greater elevation than *Simla*, where it has not yet been discovered.—(H.)

"The closely packed whorls shewing a larger number in a smaller diameter, at once distinguished this species from all the darker colored and more depressed varieties of *Nanina vitrinöides*."—(B.)

No. 5. *Nanina vesicula*, BENSON.—Testā tenui depressiusculā, pallidē corneā, translucente, politā, sūprā conoidā; apice acuminatā; infra tumidiusculā; aperturæ longitudine latitudinem æquante; labro subrecto ad axem spectante.—Diam. 0.6. Whorls six in number.

"This shell has a wide geographical range, and is yet very local. Lieut. HUTTON first met with it between *Neemuch* and *Mhow*, and noticed without naming it in the 3rd vol. of the Journal, p. 521. Mr. BENSON subsequently observed it at the effluence of the *Bhogirathi* from the Ganges, and at *Rajmahl*, and noticed it as a novelty in p. 357, vol. 5. Lieut. HUTTON again met with it abundantly at *Simla*, where it preserves the habit as at *Rajmahl* of climbing on plants, a circumstance so rare with respect to 'vitrinöides' that it can only be looked upon as a casual exception to its custom of creeping on the earth, on rocks or mossy masonry. The animals first taken by Lieut. HUTTON, were doubtless observed in too dry an atmosphere, as he then failed to remark the extensile tentacular processes of the mantle which preserve the fine polish of the epidermis; and the oval process surmounting the mucous pore must have been in a contracted state.

"The straightness and verticality of the left lip of the shell, the great comparative length of the aperture, and the acuminated spire abundantly serve to distinguish this species."—(B.)

No. 6. *Nanina fragilis*, HUTTON.—Testā tenui, fragili, vitreā, olivaceā, conico-discoideā; spirā subcxsertā, apice obtuso; anfractibus 5, suprà convexis, subtùs subplanatis; aperturā obliquā, rotundato-ovatā; peritremate acuto."—Diam. 0.35 poll.—(H.)

This small and fragile species was found at *Kirmalliah*, about 5 miles from *Neemuch*, crawling over the leaves of the Dhák bush or Pulas tree (*Butea frondosa*), on which it appeared to feed. It is a very thin fragile species, and the smallest of any of the genus I have yet seen.

No. 7. *Helix humilis**, HUTTON.—“Testā parvulā, convexo-depressā, corneā, latā et profundē umbilicatā; anfractibus quinque rotundatis, ultimo subangulato, penultimo aperturam circularem vix interrumpente; peritremate acuto.”—Diam. 0.125.—(B.)

Animal Heliciform; dark-grey or blackish.

Occurs at *Simla*, on moist rocks, on wet dead leaves, and at the roots of shrubs in the *khads*. It is very abundant during the rains, but is so small and so like the earth in color that a very close search is necessary to effect its detection. It is very nearly allied to the British species “*H. umbilicata*” (*H. rupestris* of DRAPARNAUD), but is distinguishable by its somewhat larger size, and by its rather more open umbilicus.—(H. and B.)

No. 8. *Helix orbicula*, HUTTON.—“Testā orbiculato-convexā, fuscescente, epidermide scabiā; anfractibus sex convexinsculis; peripheriā subangulatā; umbilico-profundo latiusculo; peritremate subrotundato, acuto.”—Diam. 0.4.—(B.)

The animal is Heliciform with a short foot tapering posteriorly; color pale watery brown. It closes its shell with a false operculum and is met with under dead leaves and moss, on damp rocks and at the roots of trees at *Simla* and *Mahássú*. Less common than the last described species.—(H.)

“A specimen of this shell, the largest of the *Simla* examples of the genus *Helix* as at present restricted, occurs in an interesting collection made for Mr. BENSON by Dr. CHAPMAN, at the *Darjiling* Sanatarium.

“This collection includes forms peculiar to the *Siccim* mountain forests, as well as others met with at both extremes of the Indian *Himdlaya*. The new forms alluded to are *Achatina* belonging to the group *Polyphemus*, and a strong and handsome *Cyclostoma* approaching in habit to, but somewhat larger than the European fossil species ‘*C. Mumia*,’ abundantly distinguished from it however by the rounder and more reflected orange peristome, and by its central position at the base, as well as by the delicate sculpture, and an embossed spiral cord which winds from above the umbilicus to the base, whence the species has received the trivial appellation of ‘*Funiculalum*.’ It is the first known Indian species belonging to the pupæform or subcylindric division of *Cyclostoma*.”—(B.)

No. 9. *Helix fastigiata*, HUTTON.—“Testā parvulā, albido-

* A reversed variety of this shell occurs at *Fágú*, in decayed trees, differing thus in habits from the dextral species which affects rocks and dead leaves principally. The shell is of four whorls exclusive of apex, finely wrinkled by the lines of growth; umbilicus discovering the previous volutions.—Diam. 1½ lines. In all respects resembling the dextral shell.

neā, minutissimè granulatā, pyramidatā, subties plano-convexā, anfractibus septem convexiusculis, ultimo acuto angulato, suturis leviter impressis, umbilico evanescente, aperturā latiore quàm longā ; apice obtuso."—Axis 0.16.

Animal Heliciform, greyish, darker on the tentacula. Found on dead leaves at *Simla*, in the *khads*, and when in motion carries its shell upright. It is not uncommon, but its smallness renders it difficult to collect.—(H.)

"It is more lengthened proportionally than either '*H. turbiniformis*' of *Patargatha* and *Berhampore*, alluded to in p. 357, vol. 5, of this Journal, or the European species '*H. conica*' and '*convidea*'. In size it is much inferior to any of the three. It differs altogether from the two latter in substance and coloring which approach to those of '*H. turbiniformis*', but the animal does not appear to exhibit the beautiful dark patches on a light ground which render that shell so conspicuous, when the animal is alive, by the appearance of the tints through the translucent shell; and the sculpture is altogether different."—(B.)

No. 10. *Helix bullula*, HUTTON.—"Testā parvulā, glabrā, translucente, sub-trochiformi, conoideā; anfractibus quinque convexis, ultimo rotundato; suturis impressis; umbilico angustato; aperturā latiore; labro simplici."—Diam. 0.15.—(B.)

Found with the preceding species among dead leaves at *Simla*.

No. 11. *Helix nana*, HUTTON.—"Testā parvulā, convexo-conoideā, pallidē fuscescente; anfractibus sex aut septem arctè convolutis, ultimo rotundato; aperturā latiore, labro simplici; umbilico evanolo; apice valdē obtuso."—Diam. 0.1.—(B.)

Animal Heliciform; color dark-grey. Accompanies the last two species and occurs in the greatest abundance. It is nearly allied to the British species '*H. trochiformis*', (fulva, DRAPARNAUD,) but the more closely wound whorls sufficiently distinguish it.—(B.)

No. 12. *Helix planiuscula*, HUTTON.—"Testā parvulā, depresso-fuscā, politā; anfractibus quinque, ultimi periphæriā rotundatā; aperturā transversā."—Diam. 0.1.—(B.)

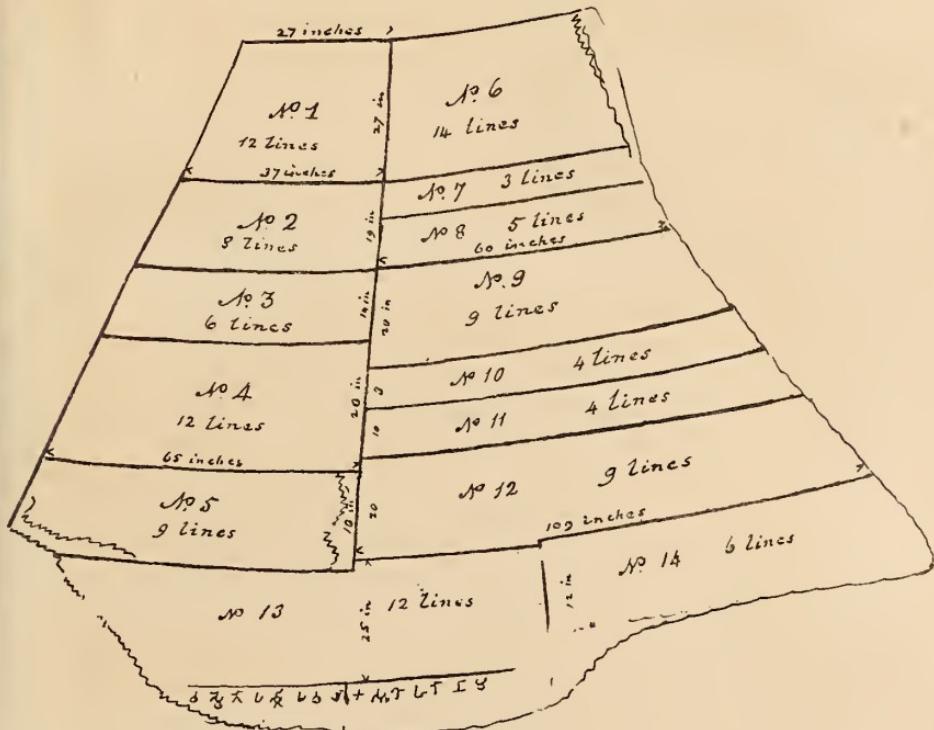
Found at *Simla* on dead leaves.—(H.)

"This shell is darker and smaller than '*H. crystallina*' of Britain, which has likewise a more flattened apex than the *Simla* species."—(B.)

[To be continued.]

[The concluding part of the catalogue will contain species belonging to the genera *Clausilia*, *Pupa*, *Bulimus*, *Carychium*, *Vertigo*, and *Cyclostoma*, together with the fluviatile shells above alluded to.]

Disposition and Dimensions of the Tablets at GIRNAR.



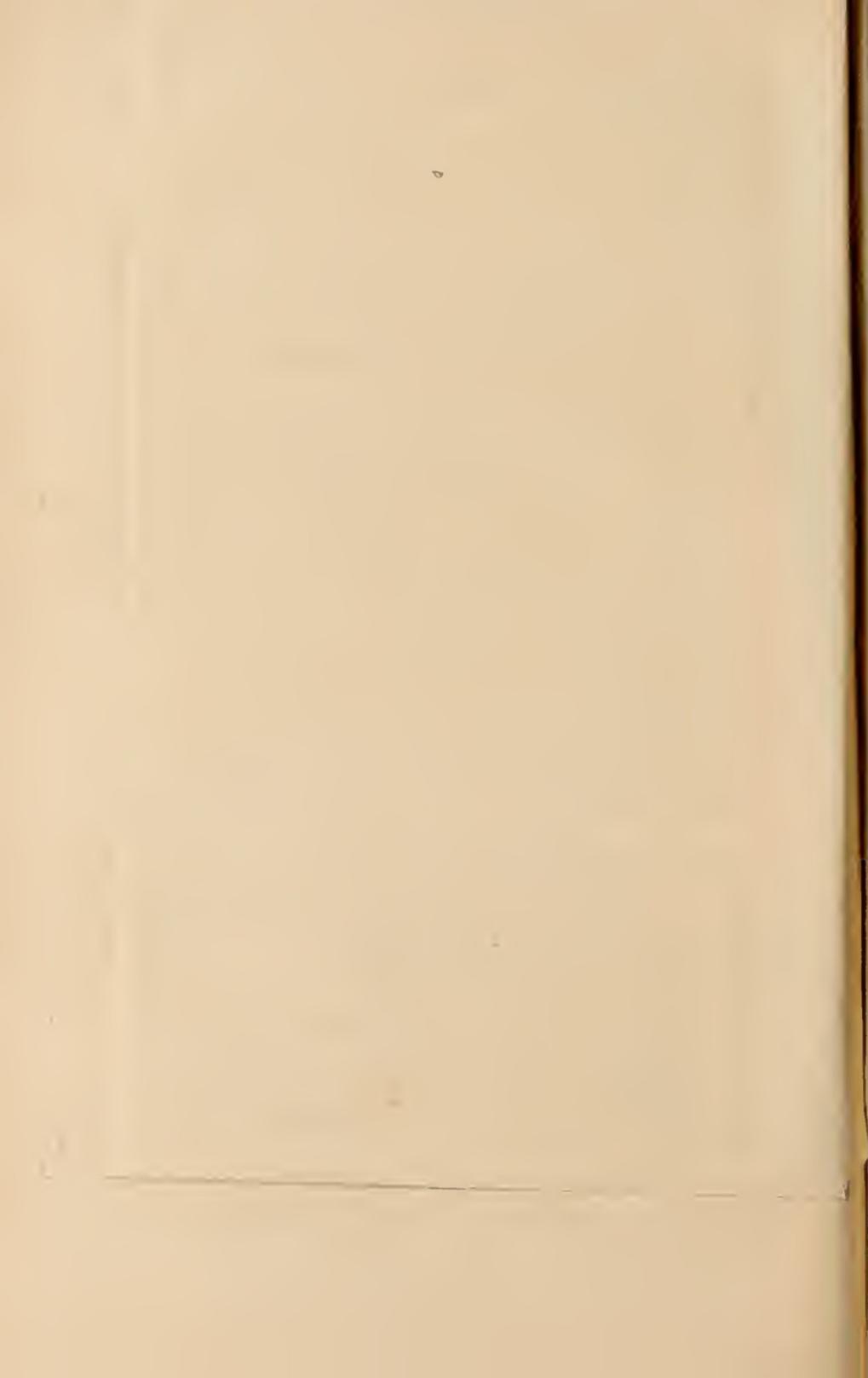
Second Tablet in facsimile.

Passage in the 13th Tablet, regarding Ptolemy.

Prinses Titti.



The image displays a full page of dense handwritten Persian text. The script is a clear form of Persian cursive. In the lower right quadrant, there is a rectangular box containing a smaller amount of text, which appears to be a summary or a specific section of the main document. The overall appearance is that of a historical or academic manuscript.



VII.—*On the Edicts of PIYADASI, or ASOKA, the Buddhist monarch of India, preserved on the Girnar rock in the Gujerat peninsula, and on the Dhauli rock in Cuttack; with the discovery of PTOLEMY's name therein.* By JAMES PRINSEP, Secretary, As. Soc. &c.

[Read at the Meeting of the 4th April 1838.]

In continuation of the discovery I had the pleasure of bringing to the notice of the Society at its last meeting, I am now enabled to announce that the edicts in the ancient character from *Gujerat* do not confine their mention of Greek sovereigns to *ANTIOCHUS* the ally of *ASOKA*, but that they contain an allusion equally authentic and distinct, to one of the *PTOLEMIES* of *Egypt*! The edict containing this highly curious passage is in a mutilated condition and at the very end of the inscription, which will account for its having hitherto escaped my attention. As I propose to lay before the Society a brief account of the whole of the *Girnar* inscription I will do no more than mention the fact at present, reserving the particulars until I come to the actual position of the passage on the stone; for there will be found, I hope, quite enough of interest in the subject matter of the inscription throughout, to allow my hearers to accompany me through a short analysis of the whole, without urging me to pass at once to the point which must necessarily be most attractive to all who have been nurtured in the school of western classical associations.

I have already mentioned the fortunate discovery of a duplicate of the *Gujerat* inscription, at *Dhauli* in *Cuttack*.

The divided sentences, or as I shall for the present venture to call them, the edicts, which are common to *Girnar* and to *Dhauli* are eleven in number. From the first to the tenth they keep pace together: the only difference being that while at *Girnar* each is surrounded by an engraved line as a frame, at *Dhauli* the beginning of each edict is marked by a short dash as will be seen in the accompanying plate. The regular succession is then interrupted by three interpolations at *Girnar*; after which, the fourteenth edict of that series is found to correspond with the eleventh or concluding one of the same set at *Dhauli*.

The three missing edicts are more than compensated at *Dhauli* by the introduction of two others not found at *Girnar*, one at the end enclosed in a frame, and one on the left hand of the same rock on a larger scale of sculpture: but both of these being of a totally different purport and being quite unconnected with the rest, I shall postpone for separate consideration.

That the edicts are of different dates is proved by the actual mention of the year of PIYADASI's reign in which several of them were published. Two of them are dated in the tenth* and two in the twelfth year after his *abhisēk* or consecration, which we learn from the Hon'ble Mr. TURNOUR's Pāli history did not take place until the fourth year of his succession to the throne of his father, BINDUSARO. Only one of the pillar edicts is dated in the twelfth year; the remainder, generally, bearing the date of the twenty-seventh year,—and one containing both, as if contradicting at the later epoch what had been published fifteen years before. From this evidence we must conclude that the *Gujerat* and *Cuttack* inscriptions have slightly the advantage in antiquity over the lāts of *Delhi* and *Allahabad*: but again in the order of sequence we find edicts of the twelfth year preceding those of the tenth, and we learn expressly from the fourteenth edict that the whole were engraven at one time. Their preservation on rocks and pillars therefore must be regarded as resulting from an after order, when some re-arrangement was probably made according to the relative importance of the subjects.

The copy that emanated from the palace must however have been modified according to the vernacular idiom of the opposite parts of India to which it was transmitted, for there is a marked and peculiar difference both in the grammar and in the alphabet of the two texts which demands a more lengthened examination than I can afford to introduce in this place. I shall however presently recur to this subject, and at least give the explanation of those new characters which I have been obliged to cut in order to print the *Girnar* text, and which in fact render the alphabet as complete as that of the modern Pāli, wanting only the two additional sibilants of the *Devanāgari*, and some of the vowels. But before doing so it will be more regular to introduce the documents themselves, with such a translation as I am capable of offering. A very few words of exordium will suffice to give us a general comprehension of their purport.

Contents of the Edicts.

The *first edict* prohibits the sacrifice of animals both for food and in religious assemblies, and enjoins more attention to the practice of this first of Buddhistic virtues than seems to have been paid to it even by the rāja himself, at least prior to the sixteenth year of his reign.

* I use these terms as more consonant to our idiom, the correct translation is "having been consecrated ten and twelve years," so that the actual period is one year latter in our mode of reckoning.

The *second edict* as we have already seen provides a system of medical aid for men and animals throughout PIYADASI's dominions, and orders trees to be planted and wells to be dug along the sides of the principal public roads.

The *third edict* enjoins a quinquennial humiliation,—or if we read the word, by the alteration of *y* to *s*, as *anusāsanam*, the republication every five years of the great moral maxims inculcated in the Buddhist creed, viz :—Honour to father and mother ; charity to kindred and neighbour and to the priesthood (whether brahmanical or buddhistic) ; humanity to animals ; to keep the body in temperance, and the tongue “from evil speaking !” And these precepts are to be preached to the flock by their pastors with arguments and example. This edict is dated after the twelfth year of PIYADASI's inauguration.

The *fourth edict* draws a comparison between the former state of things, perhaps lawless, and uncivilized, and the state of regeneration of the country under the ordinances of the beloved king. The publication of the glad tidings seems to have been made with unexampled pomp and circumstance, and posterity is invoked to uphold the system. This edict is also dated in the twelfth year of PIYADASI.

The *fifth edict* after an exordium not very intelligible, proceeds to record the appointment of ministers of religion, or more strictly missionaries ; and enumerates many of the countries to which they are to be deputed for the conversion of the young and the old, the rich and the poor, the native and the foreigner. Many highly curious points especially as to geography call for notice in this edict, wherein for the first time the name of the celebrated city of *Poṭaliputra* is made known to us in the ancient character.

The *sixth edict* appoints in like manner *pativedakas*, informers, or perhaps more properly custodes morum, who are to take cognizance of the conduct of the people in their meals, their domestic life, their families, their conversation, their general deportment and their decease. It also nominates magistrates or officers for punishment, if the word *atiyáyika* (S. अत्यायक) may be so understood—so that in this edict we have a glimpse of the excellent system of moral administration for which the Greek and Persian historians give credit to our monarch, and we find it actually not very different from that followed twenty centuries later by ourselves ; for we too have our judges, and our magistrates ; and further our missionaries are spread abroad among the people ‘to drown them with the overflowing truths of our *dharma*, to release them from the fetters of sin and bring them unto the salvation which passeth understanding !’

The *seventh edict* expresses, not an order, but an earnest desire on the part of the king that all the diversities of religious opinion may be obliterated ; that every distinction in rank and in tastes may be harmonized into one system of *bhīvasudhi*, that peace of mind, or repose of conscience which proceeds from knowledge, from faith and entire assent.

The *eighth edict* contrasts the mere carnal amusements patronized by former rājas, with the more harmless and pious enjoyment prescribed by himself. The *dhammayáta*, or in Sanskrit *dharma-yátrá*, the festival of religion, is thus set in opposition to the *vihárayátrá*, festival of amusement ; and it is stated to consist in the visits to holy people, in alms-giving, in respect to elders, and similar praise-worthy sources of rational gratification. This edict is dated in (or rather after) the tenth year of PIYADASI's reign.

The *ninth edict* continues the thread of the same discourse by expatiating on the sources of true happiness, not such as the worldling seeks in marriage, in rearing children, in foreign travel and such things ; but the *dharma mangalam*, the happiness of virtue, which displays itself in benevolence to dependants, reverence to one's pastors ; in peace with all men ; abundant charity and so forth ; through which alone can the blessings of heaven be propitiated.

The *tenth paragraph* comments upon *Yaso vá kiti vá*, 'the glory or renown' which attend merely the vain and transitory deeds of this world. The rāja is actuated by higher motives, and he looks beyond for the reward for which he strives with heroism (*parikramena*) the most zealous yet respectful.

The *eleventh edict* is not to be found at *Dhauli*, but it is well preserved at *Girnar* and the meaning is clear throughout. As former paragraphs had vaunted the superiority of every act connected with *dharma*, so this upholds that the imparting of *dharma* itself is the chiefest of charitable donations, and then it points out as usual how the possession of this treasure becomes manifest in good works rewarded with temporary blessings in this world and endless moral merit (or the reward of it) in the next.

The *twelfth edict* is likewise wanting in the *Cuttack* series. It is addressed to all unbelievers whether domestic or ascetic, with entreaty and with more solid and more persuasive bounty, though with direct disavowal that same is the object. There is some little obscurity in the passages which follow regarding the mode of dealing with the two great divisions of the unbelievers who are distinguished as *áptapásanda* (those fit for conversion or actually converted), and *parapásanda* ultra-heretics, or those upon whom no impression had been made ; but the

concluding paragraph informs us of the appointment of three grades of ministers, *dharmañáhámátrás*, *stairyya mahámátrás*, and subordinates, in the congregational ceremonies, *karmikás*, thus placing the religion upon a firmer basis, promoting conversion to it and enhancing its attractiveness among the people.

The *fourteenth edict* is one of the most interesting of the whole series. It is a kind of summing up of the foregoing, which we have seen are partly laconic and partly diffuse, but the whole is said to be complete in itself:—and ‘if more were written it would be repetition.’ We learn from this edict that the whole was engraven at one time from an authentic copy issued doubtless under the royal mandate, by a scribe and *pandit* of a name not very easily deciphered. It is somewhat curious to find the same words precisely on the rock in *Cuttack*. The name of the writer is there erased, but the final letters of *lipikára*, ‘scribe,’ are quite distinct.

This may be properly regarded as the last of the particular series of edicts to which it alludes. It terminates the left hand inscription at *Girnar*, and at *Dhauli* it is followed only by a separate edict enclosed with a line, which, as already stated and as will be seen hereafter, is of local import.

There is another paragraph at *Girnar* placed at the bottom of the left hand, which I have numbered as the *thirteenth* because it seems naturally to follow the paragraph about conversions; and like the two foregoing it is omitted at *Dhauli*. From the mutilated state of the rock in this place it is difficult to put together the context of the entire paragraph; but insulated phrases are intelligible enough, and are much in the same strain as the main inscription, repeating the usual maxim of duty to parents, humanity to animals and liberality to priests. It winds up with a curious passage about victory, which as far as I can make it out, describes the victory of victories to be that which overcometh the passions and happiness itself.—which conquereth things of this world and things of the world beyond, *ihalokiká cha páralokiká cha*, and is the true object of desire.

A line here closes the paragraph, and below it in a larger character is a remarkable expression which I read as follows:—

દસ્ત સાર્વસુર્પત્રાંતરી

Va SWETO HASTI PAVÁ LOKA SUKHÁHARO náma.

By altering *pavá loka* to *savaloka* (S. सवेलोक) ‘the whole world’ this sentence may be construed: “And the white elephant conferring pleasure upon all the world (is its) name.” But without re-

ferring to the original I would not venture even to make the very trifling alteration which this reading would require.

I may here notice, though with some misgiving of the reading upon which it depends, that the fourteenth paragraph seems to contain the explanation of the occurrence of a duplicate of the *Gujerat* inscription in *Cuttack*; or at least it shews a connection between the two countries, in the words *pachhá udhanáladesu kalingesu*—‘afterwards in the *Kalinga* provinces not to be obtained by wealth!’ while with a kind of reciprocity the *Cuttack* version of the fifth tablet as we shall have occasion to notice again, alludes to *Suláthika* or *Surashtra* as one of the provinces into which missionaries were to be deputed.

But there is another passage in this *Gujerat* edict more calculated to rivet our attention than all that I have briefly alluded to above, or even than the mention of *ANTIOCHUS* in the second or medical edict. Although we might be agreeably surprised at finding the name of a Greek prince of *Syria* preserved in the proclamation of a Hindu sovereign, there were circumstances of alliance and connection in the histories of the Macedonian provinces and of India which immediately explained away the wonder and satisfied us as to the likelihood of the fact ;—but I am now about to produce evidence that *ASOKA*'s acquaintance with geography was not limited to Asia, and that his expansive benevolence towards living creatures extended, at least in intention, to another quarter of the globe ;—that his religious ambition sought to apostolize Egypt ;—and that we must hereafter look for traces of the introduction of Buddhism into the fertile regions of the Nile, so prolific of metaphysical discussions from the earliest ages !

The line to which I allude is the fifth from the bottom. Something is lost at its commencement, but the letters extant are with few exceptions quite distinct and as follows :—

... Yona rájá paran cha, tena Chaptáro rájáno, TURAMÁYO cha,
GONGAKENA cha, MAGÁ cha,

.... idhá para de (se) su cha savata Devánampiyasa dhammánusastin
anuvatare yata pándati (? dharmasastin anuvartate yatra pádyate.)

" And the Greek king besides, by whom the *Chaptá* kings, PTOLEMAIOS, and GONGAKENOS (?) and MAGAS,"—(here we may supply the connection):—" have been induced to permit that—"

" Both here and in foreign countries, every where (the people) follows the doctrine of the religion of DEVÁNAMPIYA wheresoever it reacheth."

The sight of my former friend the *yona rája*, (whom, if he should not turn out to be ANTIOCHUS the ally, I shall shortly find another name for,) drew my particular attention to what followed ; and it was impossible, with this help, not to recognize the name of PTOLEMY even in the disguise of TURAMAYO. The *r* is however doubtful ; and I think on second examination it may turn out an *l*, which will make the orthography of the name complete. The word *rájáno* and its adjective *chaptáro* being both in the plural, made it necessary that other names should follow, which was confirmed by the recurrence of the conjunction *cha*. The next name was evidently imperfect, the syllabic letter read as *gon* if turned on one side would be rather *an*, and the next too short for a *g*, might, by restoring the lost part above, be made into *ti** :

I therefore inclined to read this name Ἀντίκονος *Antikono* for *Antigonus* and, assuming that *chaptáro* was a corruption of *chatwáro* ' four,' to understand the passage as alluding to a treaty with the four principal divisions of the Alexandrine monarchy, two of which in the time of ANTIOCHUS the Great were governed by princes of these names, viz. : ANTIGONUS (in *Macedonia*) and PTOLEMY *Evergetes* in Egypt. The fourth name however thus remained inexplicable ; while on the stone it was even more clear than the others, *Magá*.

Now in the time of PTOLEMY PHILADELPHUS, (B. C. 260) his half brother MAGAS who had married APAME the daughter of ANTIOCHUS I. had established his authority in *Cyrene* and was acknowledged as reigning monarch over a considerable portion of Lybia. A grandson of his, it is true, of the same name and brother of PTOLEMY IV. was contemporary with ANTIOCHUS the Great, but we do not read that he held any independent authority in the country. It seems therefore more rational to refer the allusion in our edict to the former period, and so far to modify the theory I have lately adopted on primâ facie evidence of the treaty of ASOKA with ANTIOCHUS the Great, as to transfer it to the original treaty with one of his predecessors, the first or second of the same name, *Soter* or *Theos*, of whom the former may have the preference from his close family connection with both PTOLEMY and MAGAS, which would readily give him the power of promising free communication between India and Egypt. I say nothing on the intermediate name, *Gongakena* or *Antigonos*, because I cannot be

* See the lithographed copy of the cloth facsimile, Plate XI.

certain of its correct spelling. ANTIGONUS GONATUS had much to do with the affairs of Egypt, but he could not be well set down among its kings.

Whether *chaptáro* (or singular *chaptá*) can be allowed to pass as the Indian appellation of Egypt may be questioned ; but I am at a loss how otherwise to understand an expression not translateable as Páli or Sanskrit. The first syllable, *cha*, may be read as a conjunction with *tena* but it will be, there, redundant ; and *Ptáro* will be more unmanageable as a plural nominative. According to WILFORD the Sanskrit name of Ægypt is *Aguptá* or *Guptá*, whence would be formed an adjectival plural nominative *Guptáro*, but I am not aware that the *g* was in ancient times softened as in modern pronunciation so as to allow of its being written by an Indian, guided by the sound alone, with a palatal in lieu of a guttural consonant.

Be that as it may, we have proof in the names of PTOLEMY and MAGAS, that the country of Egypt is intended ; and we can easily believe that its enlightened sovereign would afford every encouragement to the resort of Indians thither, for the sake of promoting that commerce with India which was so fertile a source of enrichment : and indeed history tells us that PTOLEMY PHILADELPHUS deputed a learned man named DIONYSIUS to India to examine the principal marts on the western coast, and in the interior. But a desire of studying the celebrated philosophical systems of the *brachmani* and *sramani*, already well known to him by name, may as well have been the true cause ; for such a degree of curiosity may be naturally acceded to the king, who is said to have employed seventy Jewish doctors in translating the Hebrew scriptures into Greek, and to have collected a library of some hundred thousand volumes.

Much of the Indian knowledge possessed by Alexandrine authors of later days may have been derived from ASOKA's missionaries settled in their country, and CLEMENS ALEXANDRINUS and JEROME the fathers may thence have been able to draw the faithful picture their works are said to contain of the tenets of the *Sramani* or *Semni*.

As far as the doctrines of the Buddhist faith are portrayed in the simple edicts of the royal Indian convert, they were admirably adapted to win acceptance among the educated and reflecting students of the schools of Greece and Egypt. Reverence to parents, love to neighbour, charity to the poor, and humanity to animal beings were set forth as the sure and sufficient methods of gaining happiness in this world and of propitiating heaven. The acceptance of these virtuous maxims was not thwarted by any mysterious dogmas, any harsh or

revolting condemnation of other systems. Even the insulated Jew could see nothing in them at variance with his own Mosaic commandments, and the title of the Indian religion every where resounded was one familiar to himself,—*dharma* ‘the law.’ It would be an agreeable task to follow up the train of investigation which here opens itself to the imagination :—to estimate and to trace the effect of the introduction of the Samanean principles on the prevailing opinions of the day in *Antioch*, and in *Alexandria*, as well as in *Persia* and *Bactria*, where the efforts to amalgamate the buddhist with the mithraic worship are matter of history ;—but this is too vast a field of speculation for me to enter, and many may deem our ground as yet too slight and unstable to be made the foundation of any new views.

The intercourse thus proved to have been maintained at this early date between India, that is buddhist India, and the western nations, may help us to explain another circumstance which has lately been forcibly brought to our attention by Mr. L. WILKINSON, namely, the close agreement between the Buddhist system of astronomy and the Ptolemaic. In opposing the absurd system of the brahmanical puráñas they had the advantage of all the knowledge derived from Syria and Egypt; and we thus have a clue to the compilation of the *Siddhantas*, which may be of the utmost importance in reviewing what has been written on Hindu astronomy by COLEBROOKE and BENTLEY.

Another prolific source of speculation, now that we know of the close connection between the Indians and the Greeks at the age in which the *Bhilsa* and similar monuments were erected, will be to determine what of history can be extracted from the decidedly Greek scenes depicted in the exquisite sculpture of some of these remains.

But all this I throw out merely to enable others to place a proper value upon the evidence which a mere *hint*, a mere single word, in a stone record of indubitable antiquity, brings to the elucidation of so many disputed questions : not that I have leisure or ability to make the application myself. What the learned world demands of us in India, is to be quite certain of our data, to place the monumental record before them exactly as it now exists, and to interpret it faithfully and literally, as the document says itself, ‘ without exaggeration and without extenuation.’

Anxious then to possess a copy of the text as perfect as it is possible to be made by the facsimile process, I have thought it my duty to interest the public authorities in effecting this desirable object. I confidently anticipate that the nobleman at the head of our government, and the patron of our Society will accede to my suggestion that Lieut. POSTANS, a zealous young officer now in *Cutch*, should be deputed

to Junagarh to take fresh copies of the inscriptions, as well as plans and drawings of any ruins there may be in the neighbourhood.

Meanwhile I proceed to lay before the Society the whole text of *Cir-*
nar such as I am now able to make it out from the Rev. Dr. WILSON'S
copy, which is so fair that it cannot require correction in more than a few
incomplete and doubtful passages ; and many of these even are rectified
by the collateral text so opportunely discovered in *Cuttack* ; which
Mr. KITTOE'S recent deputation to survey the coal mines there has
given him an opportunity of re-examining from beginning to end.

First Tablet.

Third Tablet.

Fourth Tablet.

Fifth Tablet.

ՀՅ ԱՅ Դ.ՑԵ.Ի ԱՇ ԵԾ (ՖԼԱՋ.Ճ ԸՆԸ ՍՕԾՄ. Դ.ՑԱ.ԽՎ.ՎԱ.Տ : Պ) Դ.ՑՑԵ.ՑԵ ՌԵ.Մ ԿԾ. ԱՅ. Դ.Ց.Վ.Ե ՎԵ.Ղ

Sixth Tablet.

Seventh Tablet.

Eighth Tablet.

Ninth Tablet.

Tenth Tablet.

Eleventh Tablet.

Twelfth Tablet.

Thirteenth Tablet.

፭፻፲፭ ማኅበር አዲስ የተሸጠባቸው ቤት

Fourteenth Tablet.

PTO-F-1-17-1-1 P.I.17-1-1 P.17-1-1 P.17-1-1 P.17-1-1

*The GIRNAR version in the Roman character, with the DHAULI
VERSION interlined in Italics.*

First Tablet.

Iyam dhammalipi devánampiyena Piyadasiná ráñá lekhápítá.
 (10 letters) ghi savata.. devánampiya.. Piya.....
 Idha na kanchi jivam árabhitá puja hitaya nacha samája katavye :
 nam álabhitu paje pa.....
 bahu rep idasam samájamhi pañati. Devánampiya Piyadasi rája

 asti pitu, ekachá samája sádhumatá. Devánampiyasa Piyadasino
 bha palápa sádhumatá. Devánampiyasa Piyadasine
 ráño pura mahánase thu he devanampiyasa Piydasino ráno anudiva-

 sam bahúni pápa satasahasáni árabhísu supátháya : sa aja yadá
 pána sata:..... álabbhiyisu supátháya dá
 ayam dhammalipi likhitáti, eva pána árabhísusupátháya dwámará
 dhammalipi likhitíti..... labhiyi.....
 ekomato : sopi ramagána dhuvá ekapátí páñá pachhá na árabhisande.
 sini pánáni pachhá na álabbhiyisanti.

Second Tablet.

[This has been already published in the Feb. number.]

Third Tablet.

Devánampiya Piyadasi lájá evam áha. Dwádasa vasábhisitenamayá
Devánampiya Piyadasi lája hevam áhá. Duwídasa vasábhisitena me
 idam añapitam. Savata vijite mama yote cha rajuke cha pádesake cha
iyam ánapitá.. . . . te sá me yuge .. lajake..
 panchasu panchasu vásesu anusáyinam siyátu: etáyeva athá-
panchasu panchasu vasesu anusayanam nikhamavu: athá annayepi kam-

ya imáya dhammánusanstáya, yathá apoyasákammáya: sadhu mane hevam imáye dhammá anusayasa u mätari cha pitari cha susúsá ; mitasa suta ḡatina bámhaṇa samaṇánam mätá pitá susúsá ; natisu babbhana samanehi sádhu dánam : páñánam sádhu anárambho : apavyayatá apabhindatá sadhu dánam : jívisu.. analambhe sádhu apaviyatá apabhanditá sádhu : parisápi yuto añapayisati gaṇanáyam hetuto cha vyanjaneto cha. sadhu : parisápi chatiyatáni ánapayi ga..... tuto cha viyan.....

Fourth Tablet.

Atikátam antaram bahúni vasasatáni vadhitá eva páñárambho, vi-
 Atikantam antalam bahúni vasasatáni vadhitava páñalambhe, vi-
 hinsá cha bhútánam; natisu asampatipatí; bámhaṇa sámaṇánam
 hinsá cha bhútánam,.. natisu asampotípatí.. samana.. vípysesu...
 asampatipatí cha : Aja devánampiyasa Piyadasino ráñodhammadchará-
 asampotípatí :.... Se aja devánampiyasa Piyadasine rajine dhammadcha-
 gauena bheríghoso api dhammaghoso, vimana dapañá cha, haṣsi dapa-
 lanena bhelighosam api dhammaghosam vimána dasanam,.. h.athíni....
 ná cha, agikhandháni cha aññáni divyáni rúpáni dasayi
 aga khandháni,.. añañáni cha daviyáni rúpáni dasayitun
 pajánam yárisa bahúhi vasa satehi na bhúta puve, tárise aja
 munisánam ádise bahu.. vasa sateksi no húta puluve, tádise aja
 vadhitá: devánampiyasa Piyadasino ráño dhammánusanstiyá;
 vuṭi :.. devánampiyasa Piyadasine rájine dhammánusuthiyá;
 anárambho páñánam, avihinsá bhutánam, náñam sampatipatí,
 analambhe páñánam, avihinsá bhutánam, natisu.. sampotípatí,
 bámhaṇa samaṇánam sampatipatí; mätari pitari susúsá; thaire susúsá,
 samanu.. bábhanesu.. sampotípatí; máta pitu susúsá(gura)va susúsá;
 esa añe cha bahu vidhe dhammadharapam vadhitá; vadhayisati cheva
 esa anne cha bahu vidhe dhammadchulane.. vadhitá; vadhayisati cheva
 devánampiyasa Piyadasino ráño vadhayisanti idam
 devánampiyasa Piyadasine rájine pavaḍhayisanti yeva
 dhamma charapam á cha pavata kapá dhammadhi sílamhi
 dhamma chalanam imam; á kepam dhammasi .. sílasi..
 ti stanto .. imam anusásisati esahise tekame yathá anusásana.....
 bhavi (si) tu sasisanti.. esahise ... me yá dhammánusásana
 dhammadharáne pi na bhavati asíla sava; imamhi athamhi dhí cha
 dhammadchalanam pi cha no hoti asílasa; se imasa.. athasa.. va dhi
 ahíni cha sádhu. Etáya atháya idam likhapatam: imasa athasa vadhyaya
 ahíni dhasáyá. Etáye athe.. iyam likhite..... imasa athasa vadhiyin

jantu : híni... lo chetam.. rhá (?) Dwádasa vasábhisitena
jantu.. híni cha má alo chayi (tun).. Duwádasa vasábhisitasa
devánampiyasa Piyadasiná ráyo idam lekhápitam.
devánampiyasa Piyadasine rajine (e) sa likhite.

Fifth Tablet.

Devánampiya Piyadasi rájá evam áha.—Kalápa dakaraya a.. la
Devánampiya Piyadasi lája hevam áhá:—Kayáne dukale.....
kaláupe pape dukara karoti: tam mayá bahu kaláyá katá: ta mama
kayáná sase dukulam kaleti: se.. me.. bahuke kayáná kate: tam ye me
putá cha potá cha pare cha tanayá me áva pavaṭa kapá....
pu....va na cha tanaye opatiye me áva kopam tathá
anuvatasare: tathá so sakatam kásati: yo tu ete desam pihápeyati
anuvatisanti: se... sákaṭam kachhati: ehe ta desam pihápayisati,
so dukatam kásati.... pakaramhi pápe. Atikátam antaram na
se dukatam káchhati pápe ha. su pudályesu. Atikuntam antalam no
bhuta puvam, dhammadhámátá náma: meyá to dasavasábhisi(tena)..
hútá puluvá, dhammadhámátá náma: se to dasavasábhisi tena me
dhammadhámátá katá; te.. sava pasandésu vyapatá
dhammadhámátá náma koṭá: te sate sava pasandésu viyapa(tá)
dhammadmajunayá dhammasutasa
dhammadhithánaye dhamma vaḍhiye hita sukhyáye cha dhammasúta ..
chayena ; Kam (bocha, gan)dhárá, naristíka petenikánaye vápi aña
sanyana, Kambocha gandhlále, suláthika pitenike, sa li, vápi anne
áparátá bhatamayesu; va (hita su) khá (ya.... va yutánam aparágó-
ápalanta bhaṭi bábhana bhisásu, anathesu
mahalokesu cha hitasukhaye, dhammayutaye apalibо-
dhaya vyápatá ; tebandhana badhaya patividhánáya já katá:
dháya viyapata ; se bandhana badhasa ya apalibо-
dháye mokháye cha iyam anubandha pajáti (ka) tá;
Bhikaresu vá thairesuhi vá vyapata ; to Paṭilipute cha báhiresu cha
bhikalesi vá mahálakensi va viyapata ; se hida cha báhilesu cha,
nagalesu savesu olodhanesu evahi bhátánam va bhaginínam
vápi añe ñatika savata viyapata, te yo iyam dha.... penpasito
annesu sá..ti savata tata viyapata cha,, iyam dhanina
nisitativam dhammadhitháne, táva dánasayute va sava
táva..... mahámátá :
pathaviyam: dhammadhitasvi viyapata inie dhamma mahámátá :
etáya atháya ayam dhamma lipi likhitá.
iniáye atháye iyam dhamma lipi likhitá; kapá tasa cha me pajá
anuvetatu !

Sixth Tablet.

(Devanampiyo) Piyadási rájá evam áha. Atikátam antaram na Devánampiye Piyadasi lája hevam ahá. Atikantam antalam na bhuta puva, sa athakamme va paṭivedaná vā tā mayá eva huta puluve, savakálam athakamme va paṭivedaná tā se mama yá katam. Save kále, bhunjamána same, úrodhánamhi, gabhágáramhi, káte. Sava sameante, oloðhanasi, gabhatapasi vachamhi va vinítamhi cha, uyánesu cha, savata paṭivedaká stitá (tapasi bis?) vinítasi..... uyenasu cha, savata paṭivedaká ... athe me janasa paṭivedetha iti! Savata va janasa athe karomi janasa .. aṭham paṭivedayantumati! Savata cha já..sa aṭham kalámi ya cha kinchi mukhato añapayámi; mayá dapakam vā, stavápakam ha .. am pi cha mukháto anapeyámi; me.. dapakam vā, savakam .. vāyavā, Puna maháthe tesu ácháyika añapita bhavati. Etáya vā eva. mahá ma .. si atiydyike alopite hoti. .. tasi.. atháya vividoni kíti vasanto parisáya, anantara paṭiveda rasam athasi vavadevani kíti vásantam pahipáyá anantaliyam paṭivadeta, va he me savatá save kále evam mayá añapitam. Nasti hi me to ren (?) meti savata savam kálam hevam me.. anusatha. ushínamhi athasantíraná yava katavyamatehi me sama loka (suthána) hapi athasantíland yacha kataviyamatehi me sava loka hitam: tasa cha puna esa múlo ushánam cha athasantíraná cha, nasti híte :.. tasa cha pana iyam mule suthána cha santíland cha, nathi kammaram savaloka hita stá, ya cha kinchi parákamámí aham! kammatala .. savaloka hitáya, a chati cha .. palakámivahakam! Kinti bhútánam (añavüam gachheyam) idha chanáni sukhápayámi; Kinti bhútánam a..ni yam ye hati.... hida cha káni sukhayámi;.. paratá cha swagam árádhayantúti. Etáya atháya ayam dhammalipi palatá cha swaga.. básádhayantuti. Etáye atháye ayam dhammalipi likhápitá: kinti chiran tiṣṭeya iti! Tathá cha me putá potá likhitá: chilathitíká hotu! Tathá cha . potá cha pápotá cha anavataram sava loka hítáya dukarantthu idam añata papotá me palakama.. sa.... ka hitáye dukale cha.. iyam annata agena parákamena.
agená palákamena.

Seventh Tablet.

Devánampiye Piyadasi rája savata ichhati save pásandá vaseyu Devánampiye Piyadasi lája savata ichhati danam va save te sayaman cha bhávasudhincha: ichhati jaṇasa uchávacha veva ti save hogá sachhaman bhávesudhí cha: ichhati munisa ochavacha

chhando uchávacha rágo te savam vakásanti ekadesam vakásanti
 vando.. uchávucha lágá te savam vú ekadasam kachati..
 visule tu pi dáne; yasa násti sayame bhávasudhi táva katam náta
 vidula pína dáne; asa nothi dhayame bhávasudhi cha
 va dañhabhatitá rani, vá bádham.
 ni che bádham.

Eighth Tablet.

Atikátam antaram rájáno vihárayátán ñeyaka etamaga-
 tam antalam láju. vahalayátum náma nikhamisuga ma (ga)-
 vyá añaui cha etárisani abhíramakáni ahum pum: so devánam-
 viyam annáni cha edisáni abhíramáni puvantinam: se devánam-
 piyo Piyadasi rája dasavasábhisito santo ayáya satam cha
 piye Piyadasi lája dasavasábhisite janikhámi sam bopa
 tenesá dhammayátá: etayam hoti,—bamhája samapáñnam dasaue cha
 tenatá dhammayátá: se hotiti,—samana bábhánám dasune cha
 dáne cha, thairánam dasaue cha,—hiranñi pañividháno cba, jana-
 dave cha, vañhánam dasane cha,—hilanna pañivipáñnená .. jana-
 padasa cha janasa daspanam, dhammánusasti cha dhammaparipuva
 padasa .. janasa dasane cha, dhammánupa chha
 cha; tadopaya esá bhayarati bhavati devánampiyasa Piyadasino
 cha tadápayála se abhírámi hoti devánampiyasa Piyadasine
 raño bháge anñe.
 rajine bháge

Ninth Tablet.

Devánampiyo Piyadasi rájá evam áha:— Atta janu uchávacham
 Devanampiye Piyadasí lája heram kahá:— ne uchávacham
 mangalam karote, ábádhasevá .. aváhaviváhesu vá putalábhesu vá
 mangalam kalelatí ábadha..... padáya.....
 pavásamhi vá; etamhi cha unñamhi cha janu uchávacham
 pavásasi etáye .. annáyevahidisáye jane bahu .. kam
 inangalam karote; Etatu mahádáyo bahuka cha bahu vidha cha ya-
 mangulam ka .. Ithíbinam.. cha bahu..adha nia.. yam cha
 dam charadatham cha mangalam karote. Ta katavyamevata mangalam
 mangalam kaleti. Se koṭaviyelevetam ananta le
 apaphalam tu kho etadisam mangalam, áyata mahá phale mangale,
 apapále.. cha kho esahadise mangul.. thi.. buhu phala, malagi..
 ya dhamma mangale, tata dásá bhatakamhi sampatipatí, gurúnam
 lata tesa.. i da. sam mupan kaleti alanam
 apachiti sádhū; panesu sayame sádhe; bamhápa samaníyam sádhudá-
 samana bábhauánam dá-
 nam: ete cha añacha etarisam dhamma mangalam náma ta vatavyam
 nam: esa .. annecha mangalam vat ...

pitá va putena va bhátá.. va svámikena va, sádhu, idam katavyam
 pitiná pi .. nápi bhitinápi suvámika..... mangalam; áva tasa athasa nistánáya asti cha pávatam sádhu
 ava tasa athasa níthánáya athi .. panamvate dáne
 dánam iti: Na tu etádisam asti dánam va anugaho va,
 sadhúti: Se nathi e.. nam ete va yádisam dhammadánam va dhammánugaho vá, ta tu kho mitena va
 dhammadáne .. dhanumanugahe suhadayena ñatikena va sapáyena va ocháditavya tamátamhi paka-
 i inena .. sapáyena va viyavadita..... tasi paka-
 ráne: idam kacham, idam sádham iti; imani saka swagam
 lanansi i..... dha yitave áradhentu iti. Kicha miná katavyam, ta.. yáthá swagárádhí?
 áladhi.

Tenth Tablet.

Devánampiya Piyadasi rájá yaso va kíti vá na maháthávahi mañate
 piye Piyadasi lá... yaso vá vídhí va na bo na añaata tadáptano (?) do gháya chame janá yasa dhamma sá pú-
 si yaso vó kaðhivú ichhati tu dwaye annati ja...ne su pu-
 sunsatáu dhammadvatán va anuvidhiyatán etakáye Devánampiya Piyadasi
 nasu..a dhamma..... va etukáye iya rája yaso va kíti va ichhati; ya tu kinchi parákamate devánampiya Piya-
 duvi palakamati devánumpiye Piyadasi rája ta savam páratikáye. Kinti sakale apaparásave asa; esatu
 sa Kinti sakama apapalásave apa kiti ... parásave ya apunñam. Dakaránta kho etam vadakená vajanena usatena va
 pama sa a kaje va añaata agena parákamena savam parácha páptá (?) etata kho usatena
ta age.....na savam cha palili khu dukena
 dukaran...
lēpasatena va usatena cha dakaleta.

Eleventh Tablet.

Devánampiya Piyadasi rája evam áha. Násti etárisam dánam yarisam
 dhamma dánam: dhamma sañstavo vá dhamma sañvihégo vá, dhamma
 sambandho vá !

Tata idam bhavati; dása bhatakamhi sampatipatí; mätari pitari
 sédho sususá; mitasasuta ñatakánam bámhápa samañánam sádhu dánam;

Páñánam anárambho sádhu: etam vatavyam pitá va putena va
 bhátá va mitasa sut (ena) bhata kena va vyava pañivesiyehi, idam sádhu;
 idam katavyam :

So tathá karu ilokavasa árádha hoti; parato vá anantañ punñam
 bhavati tena dhamma dánena.

Twelfth Tablet.

Devánampiyo Piyadasi rájá sava pásandáni cha pavajitáni cha gharistáni cha pujayati, dánena cha vividháya pújáya pújayati ឃः na tu tathá dánam va púja va Devánampiyo manñate yathá kíti: sára vadhi asa, sava pásandánam sáro vadhyata bahu vidhá: (?) taða gasa tu idam múla ya vachagutí. Kinti áptapásanda puja va parápásanda garahá va ឯे bhave, apakarañamhi lahaká va asa...tamatañamhi pakarañea; pójeta yá (n) tu eva parápásandá tena tena pakarañena; evam katam áptapásandá (n) cha vadhateti, parápásandascha apakaroti, tadánñathá karoti; áptapásandam cha chhanati parápásandascha hi apakaroti: yo hi káchi áptapásandam pujayati, parápásandam va garahati sava áptapásanda bhatiyá kinti áptapásandam dipayema iti, yo cha puna tathá karé to áptapásandam bádhataran papapunáti tasa cheváno eva sádha. Kinti mañamanñasa dhammam suñáta cha pusan serava evam hi Devánampiyasa ichha kítasaya pásandá bahu pútá cha asu kaláñágamá cha asu ye chai tata tata papuniñata hi vatavyam; Devánampiyo—ឯे tathá dánam va púja va manñate yathá kiti:—“sári vadhi asa sava pásandánam baluká cha :—”

Etaya atháya vyapitá dhammadhámátá cha ithaijha kho máhámátá cha vava (dha) kamika cha añe cha nikáyá ayanchu. Etasa phaláya áptapásanda vadhi cha háti, dhamasa cha dípané.

Thirteenth Tablet.

? ? ? tasa pasamatá tatihatán bahutivatá kammata tatá pachhá adhaná-ladhesu kalingesu tí dhammadviyo.....vadho va marañiam va apaváho va jana sata bádhé vedamatá chaganamatá cha devá (nampiyasa) ... pá ; mítá pitari sususá, guru sususá, mitasa sanstaya nátkika vyasanam papunáti tata so pitesu upagháto patipañi bhátevesiya pa ya té násti manusáñam ekataramhi pásandamhi na náma pásádeyavatako ya ta do naya saka va mítaveyávapi apaviyo devánampiya (sa) yata paj i to pita sava bhutánám achhatá cha sayaman cha sama cheron cha madava cha Yona rája paran cha tena chaptáro rájano, TURAMAYO cha, ANTÍKONO cha (?) MAGA' cha idha parinde (se) su..... savata Devánampiyasa dhammadánusastin anuvatare yata pádati. Vijayo savathá puna vijayo píti raso sá ladhá sá píti hoti dhammadvijaya-man. Vijayaman, ma vijetavyam man. N'ásarasake eva vijayechhati cha ilokiká cha pára lokiká cha.

Va SWETO HASTI SAVA LOKA SUKHA'HARO námá.

Fourteenth, and last Tablet.

Ayam dhammadlipí devánampiyena Piyadasiná rañá likhápítá. Asti eva Iyam dhammadlipí devánampiyena Piyadasiná lájina likhi..... sankhitena, asti majhamena, asti vistatena ; névayavam, pavata ghañitam ; athi majha..... ndpayare,... savata ghañitam ; mahálaka pavijitam : bahu cha likhitam likhápoyisam cheva ; asti cha mahantehi vijaye ;.....bahu ke cha likhite ... likhi yisá..... athi pa cha etakam punepanavutam. Tasatasa athasa mádhúritáya katá ; janō, nit iti : Jane,

tatha patipajetha ! Tata ekadá asamátam likhitam, asa desam cha,
 tathá patipajeyáti ! Epi cha asamat... likhite..... sa...disam
RELACHEPU lipikaré pandithena cha.
pikalati.

Translation of the first Tablet.

The following edict of religion is promulgated by the heaven-beloved king PIYADASI. “ In this place the putting to death of anything whatever that hath life—either for the benefit of the puja, or in convivial meetings, shall not be done. Much cruelty of this nature occurs in such assemblies. The heaven-beloved king PIYADASI is (as it were) a father (to his people). Uniformity of worship is wise and proper for the congregation of the heaven-beloved PIYADASI rája.

“ Formerly in the great refectory and temple of the heaven-beloved king PIYADASI, daily were many hundred thousand animals sacrificed for the sake of meat-food. So even at this day while this religious edict is under promulgation from the sacrifice of animals for the sake of food, some two are killed or one is killed :—but now the joyful chorus resounds again and again—that from henceforward not a single animal shall be put to death !”

Notes to the First Tablet.

Iyam. In others of the *Girnar* edicts *ayam* is used for the feminine, as in Páli.

Idha. The Páli form of इहा iha ‘ here.’ In the *Cuttack* dialect, *hida*; see observations on the reading of *hidapálate*, &c. below. In the present passage at *Dhauli*, ‘ *savata*,’ every where, seems to be substituted.

Arabhilá, or árabhyatá, for the vowel mark more resembles a *y*; Sans. आरभ्य slaughter of animals.

Paja hitaya (for the benefit of the people; Sc. for food) S. *praja hitáya*, has the support of the *Cuttack* text, but *puja hitiya*, ‘ for the efficacy of puja’ as in *Girnar* seems preferable.

Samoja katavye, ‘ an assembly of beasts (not) to be made’—might allude to the practice of animal fights ;—but as *samája* comes afterwards twice, I prefer it here also, and would read *katavyam*.

Repidasam :—I have rendered this by रेप दृश्य cruel sight or cruelty : the pandit would read *bahu kam idrisam*, ‘ much of this kind.’

Astipitu अस्तिपितु, ‘ is the father ?’—perhaps in a deified sense?—were Piyadasi not in the nominative case I should be inclined to read *añapitam*, ordained by.

Ekachá, S. एकाचा one worship or worship of one object?—This sense is confirmed by the feminine adjective *sádhumatá*, excellent-minded or righteous. The *Cuttack* text is here erased but for *samája* it reads *palápe*, प्रलापे in conversation instead of in company.

Mahánase thupe — महानसः a kitchen and स्तुपः a tope or buddhist monument: but the latter word is doubtful and unsuitable.

Supátháya स्तुपं अर्थाय, *supa* is broth (or soup)—probably such as contained meat.

Aja, Páli form of अज्ञ, bodie, to-day.

Dwámará ekomato. This passage is altogether very unintelligible:—I have rendered it द्वामतो एकोमतः.

Ramagána dhuvá is also doubtful. रम्य pleasant गान song भ्रुव, chorus or ‘ reprise’—are the basis of the translation I have conjecturally offered.

Translation of the Third Tablet.

Thus spake the heaven-beloved king PIYADASI:

“ By me after the twelfth year of my anointment, this commandment is made! Every where in the conquered (provinces) among the faithful, whether (my own) subjects or foreigners, after every five years, let there be (a public) humiliation for this express object, yea for the confirmation of virtue and for the suppression of disgraceful acts.

“ Good and proper is dutiful service to mother and father;—towards friends and kinsfolk, towards brahmans and sramans, excellent is charity:—prodigality and malicious slander are not good.

“ All this the leader of the congregation shall inculcate to the assembly with (appropriate) explanation and example.”

Translation of the Fourth Tablet.

“ In times past even for many hundred years has been practised the sacrifice of living beings, the slaughter of animals; disregard of relations, and disrespect towards brahmans and sramans:—This day by the messenger of the religion of the heaven-beloved king PIYADASI, (has been made) a proclamation by beat of drum, a grand announcement of religi-

Notes to the Third Tablet.

Vijite, in the second tablet *rījītamhi*, in the Cuttack idiom *rījītamsi*; all variations of the Pāli locative case. *Vijitam* may, I believe, mean dominion generally as well as conquest.

Yote is the Sanskrit युक्ते; *yuge* on the other hand is योगे the devoted:—both nearly similar in signification.

Anusayinam, S. अनश्चयं penitence. *Siyātu स्यात्* ‘let be’ is replaced by *nikhāmaru* quasi निःक्षम भूवेत् ‘is undoubtedly proper,’ क्षम zeal, see the same word in the extract quoted below.

Dhāmna anusāstāya ‘for firmly establishing virtue’ अनुसंसाध्य and अपदयशकभाय ‘for the avoiding of disgraceful acts’ are imperfectly deciphered at *Dhauli*.—*Kam-máne* and *unusayasa u*.

Nātinam samanānam, &c. in the genitive or rather dative case, are put in the locative *nātisu-samanehi*, (q. *nemsi*) at *Dhauli*. The same holds for *pānānam*, replaced by *jīvisu*, ‘among living things.’

Parisūpiyuto is, I suppose, compounded of परिषद् an assembly, अपि and युक्तः quasi the ‘leader of the congregation.’ The Cuttack text adds *chatiyatāni* quasi belonging to or near the chetiya?

Aparayoyatā, ‘lavish expenditure’—and *apabhindatā*, calumny, अपभेद or perhaps *apabhādítā*, ‘separation from society.’ भाण्ड (cooking vessel). Read *asādhu*. The *Dhauli* orthography of *riyatā* explains a word misunderstood on the pillars.

Hetato, exactly the Sanskrit हेतुतस्य अंजनतस्य in the 5th case, *taspritya*,—‘as to cause, and as to effect, or token.’

Notes to the Fourth Tablet.

Atikāntam antaram, occurs too often to allow the reading adopted by the pandit, of the latter word as the verb *ātaran*:—it is clearly अतिकान्तं अन्तरं ‘clapsed interval’—used adverbially, and denoting that an anterior period of obedience existed.

ous grace—and a display of equipages, and a parade of elephants, and things to gratify the senses, and every other kind of heavenly object for the admiration of mankind, such as had never been for many hundred years, such were to-day exhibited.

“ By the religious ordinance of the heaven-beloved king PIYADASI, the non-sacrifice of animals—the non-destruction of living beings, proper regard to kindred,—respect to brahmans and sramans : dutiful service to mother and father ; dutiful service to spiritual pastors :—through these and many other similar (good acts) doth religious grace abound ; and thus moreover shall the heaven-beloved king PIYADASI cause religion to flourish : and the same shall the sons, the grandsons, and the great-grandsons of the heaven-beloved king PIYADASI cause to abound exceedingly.

“ As long as the mountains shall endure, so long in virtue and in strict observances shall the religion stand fast. And through good acts of this nature,—that is to say—through these ordinances, and the strict practice of religion laxness of discipline is obviated. Moreover in this object it is proper to be intelligent and nowise neglectful. For the same purpose is this (edict) ordered to be written. Let all take heed to profit of this good object and not to give utterance to objections.

“ By the heaven-beloved king PIYADASI after the twelfth year of his anointment is this caused to be written.”

Bámhana-samapánam, is curiously replaced at *Cuttack* by *samana-ripuyesu*, तिप्रेष्य of the same meaning, but throughout the *Cuttack* text the buddhist *sramans* have precedence of the brahmanical priests.

Charáganena, (charagana) ‘ by the conveyer :’—at *Dhauli*, *chalanena* ‘ by the progress.’

Vimana, &c. There is a strange disagreement between the two texts in this sentence, apparently owing to misapprehension of the copyist. *Girnar* reads *vimana* ‘ grief,’ *hassi* (हर्ष) ‘ joy’—and *dapaní*, दर्पणात ‘ from the mirror of :’—*Dhauli* has *vimána* ‘ equipage,’ *hathini* हस्तिनी ‘ a female elephant’—and *dasanam* दर्शन ‘ the sight of.’

Anga khandháni, the five objects of sense.—*Aggikhandháni*, on the contrary is the title of one of Buddha’s discourses, ‘ the heap of fire.’

Yárisa-tárisa, and in the *Cuttack* idiom *ádisé tadise* are the Sanskrit यावश नावश or in the modern Hindustani *jaisá taisá*.

Nalhúta puve, *Cuttack*—no *húta puluve*, Sans. नभूत पूर्वे.

Dhammanusastiyá—here we find the correct rendering of *anusathiya* of the pillars : Sans. अनुशस्ति-स्त्या ‘ by the ordinance of.’

Apavatukapá—or *kepam* from कप or केप ‘ to move’—‘ until the moving of the hills’—abbreviated by omission of *pavata*—quasi ‘ until the break up (of all things)’—the pandit prefers हपा, ‘ benevolence, as enduring as the hills.’ See below.

Dhi cha ahíni cha धो intellect—हो complaint, objection—or हानि abandonment.

Asilasa. The latter part of this edict is rather obscure : there is too much of a truism in अशोऽस्ति: शोले नभवति besides *asilasa* is in the genitive case.

Translation of the Fifth Tablet.

Thus spake the heaven-beloved king PIYADASI:—

“ Prosperity (cometh) through adversity, and truly each man (to obtain) prosperity causeth himself present difficulty—therefore by me (nevertheless) has much prosperity been brought about and therefore shall my sons, and my grandsons and my latest posterity, as long as the very hills endure, pursue the same conduct; and so shall each meet his reward!—While he, on the other hand, who shall neglect such conduct,—shall meet his punishment in the midst of the wicked [in the nethermost regions of hell.]

“ For a very long period of time there have been no ministers of religion properly so called. By myself, then, in this tenth year of mine anointment, are ministers of religion appointed*: who, intermingling among all unbelievers (may overwhelm them) with the inundation of religion, and with the abundance of the sacred doctrines. Through *Kam*(*bocha*, *gan*) *dhára*, *narásṭika*, *Petenika*, and elsewhere finding their way unto the uttermost limits of the barbarian countries, for the benefit and pleasure of (all classes) ... and for restraining the passions of the faithful, and for the regeneration of those bound in the fetters (of sin?) are they appointed. Intermingling equally among the dreaded, and among the respected—both in *Pátaliputra* and in foreign places, teaching better things shall they everywhere penetrate; so that they even who (oppose the faith shall at length become) ministers of it.”

Notes to the Fifth Tablet.

The opening sentence in this tablet has evidently a close relation with that on the pillars beginning with the 17th line of the north side at *Delhi*, and as it presents no small difficulty to the translator, it may be as well to insert here the pillar version for comparison with the other two.

Kayánam eva dekhati iyam me kayáne kateti: nomina pápakam dekhati, iyam me pápaka kateti.

The *Girnar* reading of *kalánam* confirms my pandit's assumption that *kayánam* should be rendered by the Sanskrit *kalyáṇam*, happiness, prosperity, rather than by *kshaya*, *kshayiní*, waste prodigality, as adopted by the Hon'ble Mr. TURNOUR, which would I imagine form *khaya*, *khayiní* in Páli, and indeed we have this very word in another part of the inscription. The word naturally contrasting with *kalyanam* is *dukkh* (दुःख) affliction, or *dushkaram* (दुःखरं) evil, trouble, wicked: this latter might be softened in Páli to *dukham*, or *dukam*, as we find in the two texts. We must not confound it with the second word *dekhati* of the pillars which is the verb *drishyati* दृश्यति ‘appears.’ But in the pillars the contrast is made by *pápam*, or *pápakam* ‘wickedness.’ Were the two new texts complete we might easily explain them, at present we can only conjecture. Thus the pandit gives it in Sanskrit: काल्याणं दुष्काराय चतएव कल्याणं शेष्व दुष्कारं करोति तत्मया बज्जकल्यणाःऽतः:

* The Cuttack version differs so much in the latter part of this edict that a separate translation is necessary from the point here marked.

For this purpose is the present religious edict caused to be written.

*The Cuttack version continued from *.*

— who shall be intermingled with all the hundred grades of unbelievers for the establishment among them of the faith, for the increase of religion, and for their profit and gratification through the context of the sacred doctrines, in *Kambocha* and *Gandhara*, in *Surastrika* and *Pitenika*,... and even to the farthest (limits) of the barbarian (countries). Who shall mix with *brahmans* and *bhikshus*, with the poor and with the rich,—for their benefit and pleasure, to bring them unto the righteousness which passeth knowledge; and for those bound in the fetters (of sin) this new bond of precious knowledge is made for their final emancipation which is beyond understanding: and among the terrible and the powerful shall they be mixed both here and in foreign countries, in every town, and among all the kindred ties even of brotherhood and sisterhood, and others every where! and here also having penetrated, for there is religious darkness (?) even in the

Parechatanayā, परेचतनया सम my posterity—तनयः ‘a male descendant.’ To this is added in the *Cuttack* version *apatiye अपत्यं* ‘offspring male or female.’

Anuratasare, either अनुवत्तरे ‘yearly;’ or better अनुवर्तिष्यन्ते, shall uphold.’

Pihāpayisati विहापयिष्यति or perhaps, *pesāpayisati* पिस, to injure, to destroy.

Kasati,—*kacchatī*; precision will no longer allow the reading formerly adopted of *gacchati* ‘goes.’ In its stead we have a choice of काशति, कचते, कञ्जते, all synonymous as ‘shines,—’ *prakāś kartā*, illuminates:—or of कसति. काले from कस to go, to approach or meet, which I prefer: लुक्तं and दुक्तं, good and evil recompence, contrast as well as the places of their reward; and *pudālayesu* can only be explained as पुत्र आक्षयेष in the mansions of the put hell—to which the childless are condemned, and which is said to have a most abominable stench.

Pakaramhi plēpe, प्रकर heap, पाप sin.

Dhammamajunayā, मज्जनयः ‘by drowning in dharma.’

Dhamma sūtasa chayena, सूत्रस्य चयनः *dhammādhithánaya अधिष्ठान* abiding.

Kambocha, &c. for these places see observations *sanyena संयः* union.

Aparātā bhaṭa mayesu अपरात having nothing beyond, भट्ट barbarian सर्था boundary.

Aparāyodhāya, अपरायोधं restraint of passion.

Apalibodhāya, अपरिवोधं not within knowledge.

Pativādhandyā is from प्रतिवाधं repeated opposition. I read प्रतिविधानाय for re-arrangement, substituted ceremonial.

Paṭalipute cha bhairesu cha, is replaced in *Cuttack* (which is nearer the capital) by *hida cha bāhilesu cha इह च बहिषुच्*.

Anubandhapajjati, प्रज्ञातिः pre-eminent knowledge.

Bhīkāresu, भीकार worker of dread: *thairesu*, थैरेश्च a name of distinction which is commonly found in Páli books written *thero*, ‘reverend, or honorable.’

Oloḍhanesa, from ऊरु the loins or ऊरः the breast and धन treasure?

Bhātānum, va bhaginīnam भातीणां भगिनीनां.

Dānasayute, dhammayute दानयुज् charitable, धर्मयुज् righteous.

very metropolis of religion, every question shall be asked among the charitable, and these being themselves absorbed in righteousness, shall become ministers of the faith (?). For this express reason is this religious edict promulgated ; for evermore let my people pay attention thereto !

Translation of the Sixth Tablet.

Thus spake PIYADASI the heaven-beloved king!

“ Never was there in any former period a system of instruction, applicable to every season and to every action, such as that which is now established by me !

“ For every season, for behaviour during meals, during repose, in domestic relations, in the nursery, in conversation, in general deportment, and on the bed of death, every where instructors (or *Pativedakas*) have been appointed :—accordingly do ye (instructors) deliver instruction in what concerneth my people.

“ And every where in what concerneth my people do I myself perform whatsoever with my mouth I enjoin (unto them); whether it be by me (esteemed) disagreeable or whether agreeable. Moreover for their better welfare among them an awardee of punishment is duly installed. On this account, assembling together those who are dwelling in the reputation of much wisdom, do ye meanwhile instruct them as to the substance of what is hereby ordained by me for all circumstances and for all seasons. This is not done by me in any desire for the col-

Dhammanisá tativam. I am quite unable to give the sense of this passage; *nisá* निशा night, is feminine as *iyam*, and *adhitháne* अधिस्थाने is in the locative—hence the turn I have adopted.

Pathaviyam, may be प्रष्टुव्यं to be questioned.

A'va pavaṭa kapá, and *ára kapam*, I have rendered by यावत् पर्वतकस्य and यावत् कल्पं as long as the age of the hills—or simply for a *kalpa*, or immense period. The long á in *kapá* inclined the pandit to understand कपा a benevolence—as enduring as the hills. (See last tablet.)

Notes to the Sixth Tablet.

Pativedaná, प्रतिवेदना information either delivered or received by espionage?—*pativedaka*, the giver of or agent to receive the same: instructor is the more probable.

Tá era katam, or *yá kate-tat* and ye the participles should agree in both cases.

Bhunjamiána—same, भुज्मान् eating, सम् quiet—quere sleep?

Orodhanamhi—अवरोधने in the secluded apartment or zenána?—implying as I presume conjugal or domestic relations, or see another explanation offered in the last tablet.

Garbhágáramhi, nearly of the same import—or गर्भागार the womb.

Uyánesu उद्यानेषु in going up—or in articulo mortis?

Stítá, stísháta the verb (or rather participle) is avoided in the Cuttack text by carrying to the imperative *vedayantu*. The other has *pativedetha* in the second pers. plural, imper. mood.

Mukhato मुखतस् orally—from the mouth.

lection of worldly gain, but in the real intention that the benefit of my people shall be effected; whereof moreover this is the root, the good foundation, and the steady repose in all circumstances: there is not a more effectual mode of benefitting all mankind, than this on which I bestow my whole labour.

“ But upon how many living beings (I will pass over the mention of other things) do I confer happiness here:—hereafter likewise let them hope ardently for heaven! amen!

“ For this reason has the present religious edict been written:—May it endure for evermore; and so may my sons and my grandsons and my great-grandsons uphold the same for the profit of all the world, and labour therein with the most reverential exertion.”

Translation of the Seventh Tablet.

The heaven-beloved king PIYADASI every where ardently desireth that all unbelievers may be brought to repentance and peace of mind. He is anxious that every diversity of opinion, and every diversity of

Dapakam-stavápakam दपकं what kindles—or is pungent and disagreeable? satire: स्तवकं praise—eulogy—what is sweet.

Váyavá—(Cuttack version, *va eva*) Sanskrit वैव.

Maháthe—*tesu* .. reads at *Dhauli*, *mahámatesu*, among the right-minded.

Acháyiko—*atiyáyike*, the awardee of अत्याय death, punishment.

Vividoni—*vividevani*, विविदानी कोर्ति fame proceeding from wisdom.

Anapitam—*anusathi* are here seen to be synonymous; अनुशस्ति order.

Vasantam living (sub. *janam*) *parisaya*, and *paripáya* are nearly synonymous.

Uddhinamhi—a doubtful word—उद्धम्य a wish?

Atha sanstirandya from अर्थ संस्थारणं collection or security of property?—more correct in the other idiom *santilanáya*, शान्तिं calm or repose in a religious sense.

Ustánam—only explicable by the other text *suthánam* or सुस्थान the excellent abode; see *uddhinamhi*.

Parákumími aham, or *ahakam*—अहम्—this is the first time I have met with the first personal pronoun nom. sing.

A'nañña gaccheyam, seems introduced parenthetically (others I will not approach) अन्यन्नगच्छेयं,—but the passage is doubtful.

Idha chanáni, इहचनानि—thugs connected with herc, probably *káni*, how many.

Agena—I have been here compelled to acknowledge Mr. TURNOUR's more correct interpretation—see note on the alphabet. अग्र, chief.

Notes to the Seventh Tablet.

Ichhati is written *ivati* in the *Girnar* copy, by mistake?

Vaseyu, वशेयु may incline or desire, वश.

Sa-yamam, सयम् religious restraint: at Cuttack, *sachhaman*, सच्चमं righteous; from सत् शम्, repose.

Bháva sudhi, भावसुधि quiet of conscience, purity of mind.

Uchávacha, उच्चावच्च high and low—extremes.

passion may shine forth blended into one system, and be conspicuous in undistinguishing charity! Unto no one can be repentance and peace of mind until he hath attained supreme knowledge, perfect faith which surmounteth all obstacles, and perpetual assent.

Eighth Tablet.

In ancient times, festivals for the amusement of sovereigns consisted of gambling, hunting the deer (or antelope) and other exhilarating pleasures of the same nature. But the heaven-beloved king PIYADASI having attained the tenth year of his anointment, for the happiness of the wise by him hath a festival of religion (been substituted):—and this same consisteth in visits to brahmans and sramans, and in almsgiving, and in visits to the reverend and aged; and the liberal distribution of gold, the contemplation of the universe and its inhabitants, obeying the precepts of religion, and setting religion before all other things, are the expedients (he employs for amusement) and these will become an enjoyment without alloy to the heaven-bcloved king PIYADASI in another existence.

Chhando, छन्दः; opinion : राजः passion, taste.

Ekadesam, of one country, or एकादृशः of One kind, but such a word does not exist.

Vidala (*Cuttack*) विद्लः expanded—*risule* (*Girnar*) is doubtful in the second syllable.

Katam नालाः.—लोतस्ताः, supreme wisdom.

Dadhabhuti, दृढभूतिः great faith or devotion ; *tārini*, तारिणी that transports.

Niccha. नित्यं always—The *Cuttack* version omits the two foregoing qualifications, and retains only *bādham*, बाद्धः assent.

Notes to the Eighth Tablet.

Rájano vihárayatá, the plural *rájano* seems here to be joined by samás with विहार याचः; although contrary I believe to rule, to express that such amusements were common to all rājas:—the *Cuttack* text has the singular noun.

Neyaka, I have translated gambling, from न्यय waste, न्यायक ; but perhaps it should be adjectively applied as extravagant or destructive, to hunting.

Etanagaryā, from एतः; a deer? स्वर्गशा (properly स्वर्गय) in the feminine, for the *Cuttack* text is right in using *mugariyam* in the neuter the chase.

Abhiramakāni, pleasureable :—also, *abhiramani* for अभिरम्यानि; *ahun punso*, अभवन पुंसः; the so should be carried on.

Alhisilo santo,—in Sanskrit सन् being: as the ablative absolute.

Thairánam vadhnám, here we have the parallel to the Pā.i *thero* in उद्धानां aged.

Hiranna pativedháno—प्रतिविधानः, repaying with interest.

Dhamma paripura, परिपूर्वः placing before all else.

Tadopaya, तदुपाय means, expedient for this.

Abhayaratī, pleasure without fear, is replaced in the *Cuttack* text with *abhirmame* imply enjoyment.

Bhōge anñe, in another भाग, fortune, or life.

Ninth Tablet.

Thus spake king PIYADASI beloved of the gods!

“ Each individual seeketh his own happiness in a diversity of ways: in the bonds of affection,—in marriage, or otherwise,—in the rearing of offspring,—in foreign travel:—in these and other similar objects doth man provide happiness of every degree. But there is great ruination, excessive and of all kinds, when (a man) maketh worldly objects his happiness. On the contrary this is what is to be done,—(for most certainly that species of happiness is a fruitless happiness,)—to obtain the happiness which yieldeth plentiful fruit, even the happiness of virtue; that is to say ;—kindness to dependants, reverence to spiritual teachers are proper; humanity to animals is proper: almsgiving to brahmans and sramans is proper:—all these acts and others of the same kind are to be rightly denominated the happiness of virtue!

“ By father, and by son, and by brother : by master (and by servant) it is proper that these things should be entitled happiness. And further for the complete attainment of this object secret charity is most suitable: yea there is no alms and no loving kindness comparable with the alms of religion and the loving kindness of religion, which ought verily to be

Notes to the Ninth Tablet.

A'ha:—Whether by mistake or otherwise, the *Cuttack* text has *kahá* the modern Hindustáni verb.

Attajano, आत्म जनः each man respectively, properly आत्मजे for himself.

Uchávacham, see last edict—of high or low degree.

A'bádhasi eva, or *ábudhási*, from आबद्धः: bonds of affection, or ornament, which latter will perhaps contrast better with the other objects.

Aváhu-riváhesu, विवाह marriage, अविवाह the opposite state.

Putalubhesu, पुत्राभ्यः acquisition of a son—प्रवास foreign residence.

Mahádáyo, द्वयः destruction, calamity.

Charadatham, चरदथ्यं मंगलं happiness in things of ordinary occurrence.

Ta-kataryameva, तत्त्वात्यसेव in Sanskrit this member of a proposition comes before the explanation of its nature.

A'yata, आयत् long, diffuse—the nouns are here put in the locative case without apparent reason : *etatkurtavyam mahaphalé mangale*, &c. this is to be done in (or to obtain) profitable happiness.

Bhalakamhi, भृतक् the hired labourer.

Apachitti, अपचित् worship, salutation.

Svámika, *suvámika*, स्वामिक a master, lord—as a contrast I have inserted *bhataka*, servant, to fill a space of 3 letters.

Pávatam, प्रावृत्तं concealed, covered.

Suhudayena natikena, सुहृदयेन ज्ञातिकेन ;—*sapáyena* may be ‘impassionate.’

Ucháditavya, उत्पादित् elevated, purified, manifested? तत्त्वाचे प्रकारणे entire fulfilment; or it may be read *ramatamhi*, रास or रम्यं agreeable; or तत्त्वाते of this mind.

upheld alike by the friend, by the good-hearted, by kinsman and neighbour, in the entire fulfilment of pleasing duties.

"This is what is to be done: this is what is good. With these things let each man propitiate heaven. And how much ought (not) to be done in order to the propitiation of heaven?"

Translation of the Tenth Tablet.

The heaven-beloved king PIYADASI doth not deem that glory and reputation (are) the things of chief importance; on the contrary (only for the prevention of sin?) and for enforcing conformity among a people praise-worthy for following the four rules of virtue, and pious, doth the heaven-beloved king PIYADASI desire glory and reputation in this world; and whatsoever the heaven-beloved king PIYADASI chiefly displayeth heroism in obtaining, that is all (connected with) the other world.

For in every thing connected with his immortality there is as regards mortal things in general discredit. (?) Let this be discriminated with encouragement or with abandonment, with honour or with the most respectful force, and every difficulty connected with futurity shall with equal reverence be vanquished.

Kacham, कृत्यं to be done—distinguished from *kataryam* what ought to be done?

Swagárádhī, (?) आ seems used substantively: *káchana-iná*, &c. may be read as काचन एनाकर्त्तया यथा स्वर्गाराधः—*ená* for *esá* (*kriyá*) how much ought this to be done, as the propitiation of heaven?—

Some passages in the Cuttack text differ from the other, but they are too much mutilated to be separately interpreted.

Notes to the Tenth Tablet.

Maháthá váhi, either महाया of great importance or महास्तवः great praise.

Tadáptano-do-gháya, &c. the whole of this passage is unintelligible without alteration—the pandit reads धमंचतुर्थ प्रशंसता धर्मवता अनिधत्तां.

Etakáye—*paratikaye* misunderstood in the pillar edict *hidakaye*, *paratikáye*.

Apunñam, *apakiti*, अपुण्णं, अपकोर्त्ति, disgrace, vice.

Apaparásare, अपपरासरे 4th case from परासु, on account of immortality?

Vadakena, *vajanena*, admit of two interpretations either वादकेन वाजनेन by the minister and by the people, or वद्दकेन by separating and वर्जनेन by abandonment, i. e. by discrimination.

Dakarántu and *dukarantu*, I can only explain by deriving the first from हृ to fear, avoid, हतंकुर्वन्तु and the second from दुष्कुर्वन्तु labour strenuously, the whole passage is difficult, and *dukarantu* is not properly a verb—it should be *dukaran kurvantu*, Pali, *karontu*.

Eleventh Tablet.

Thus spake PIYADASI the king beloved of the gods!—There is no such charity as the charity which springeth from virtue!—(which is) the intimate knowledge of virtue, the inheritance of virtue, the close union with virtue! And in these maxims is it manifested: “kindness towards servants and hirelings; towards mother and father dutiful service is proper;—towards a friend’s offspring, to kindred in general, to brahmins and sramans, almsgiving is proper: avoiding the destruction of animal life is proper.” And this (saying) should be equally repeated by father and by son, by brother and friend’s son, (?) by the hireling and even so by neighbours in general!

This is excellent—and this is what ought to be done!

And whoso doeth thus, is blessed of the inhabitants of this world: and in the next world endless moral merit resulteth from such religious charity.

Twelfth Tablet.

The heaven-beloved king PIYADASI propitiateth all unbelievers, both of the ascetic and of the domestic classes; by charitable offerings and by every species of puja doth he (strive to) propitiate them. Not that the beloved of the gods deemeth offerings or prayers to be of the same (value) with true glory. The promotion of his own salvation promoteth in many ways, the salvation of all unbelievers of which indeed this is the root, and the whole substance.

Notes to the Eleventh Tablet.

Sanstava, संस्तवः: intimate knowledge—or संस्तावः eulogy?

Samvibhāgo, संविभागः: inheritance, or the due distribution of religious duties?

Sambandha, सम्बन्धः: property, union, friendship.

Vatavyam, perhaps वर्त्तितव्यं to be performed, from वृत् rather than वक्तव्यं to be spoken.

Naitikánam if the *a* were long it might be ज्ञात्काण्डी pandits.

Bhataka, भृतकः a hired labourer.

Sampatipati, the original has the *m* written with a stroke beneath apparently to serve as the *vyanjan* of the Sanskrit:—it must have been written by mistake in lieu of the *anusvara*.

Notes to the Twelfth Tablet.

Pujayati, पूजयति propitiates by puja.

Pásandáni pavajitáni—*gharistáni*, प्रविजितान् ascetics those who have entirely conquered their passions—गृहस्थान् *grihist* or laity, possessing homes and families. It will be remarked that the accusative case plural is made to terminate in *áni* instead of *án*.

Again, the propitiation of the converted heretic, and the reproof of the unconverted heretic must not be (effected) by harsh treatment : but let those who enter into discussion (conciliate them) by restraint of their own passions, and by their mild address. By such and such conciliatory demeanour shall even the unconverted heretics be propitiated. And such conduct increaseth the number of converted heretics, while it disposeth of the unconverted heretic, and effecteth a revolution of opinion in him. And (he) encourageth the converted heretic, while he disposeth completely of the unconverted heretic, whosoever propitiateth the converted heretic, or reproveth the unconverted heretic, by the pecuniary support of the converted heretic. Moreover we thus stimulate materially the converted heretic. And whoso, again, doth so, he purifieth in the most effectual manner the heretic ; and of himself such an act is his very breath, and his well-being.

Moreover 'hear ye the religion of the faithful and attend thereto : even such is the desire, the act, the hope of the beloved of the gods, that all unbelievers may speedily be purified, and brought unto contentment speedily.'

Furthermore from place to place this most gracious sentiment should be repeated :—

Sára vadhi. सार essence, marrow, excellency—दृष्टि increase. I have been forced to translate this by periphrasis as salvation : perhaps it should be taken with *kirti*—*kirti sára* being a common expression, but the second time it occurs without it.

Aplapásanúia, आप्तः aptus, apt, gained, obtained.

Garahá, गर्वः abuse, ceusure: the sentence beyond is incomplete.

Apakaraṇamhi, अपकरणं from प्रकरणं treating with respect or doing well—rather than अपकरणं putting away.

Lópaká, disputants? लूप to contradict, dispute, speak—the verb for this is wanting. *Tamatamhi,*—तमत desires, libidinous? तम dark: better *tam matamhi*, of this mind.

Chhanati, च्छन्ति according to the pandit signifies praises, gives pleasure to,—in the dictionary 'injures, kills,' or च्छन्निति diminishes; *garahati*, गर्वति blames. So, the nominative prounoun is omitted.

Apakaroti, undoes, puts to a distance—this verb governs a genitive.

Bhatayá, भूत्या by the hire, or pecuniary employment.

Dipayema, we stimulante, दोष kindle.

Mañnamanūasa—मन्यमान obedient, faithful.

Suṇita? सुखन hearing, or सुख्णन सुख्णयन hear ye and obey.

Pusannata, प्रसन्नतः with (or from) grace.

Sara vágutí—I can only render this, by सर्ववाग् इति *sarra vágili*—tbis is the wbole story.

Pujetayátu, पूज्यतांयांलु let be propitiated, (*yántu*, in the plural, is required.)

Tasa cheváno,—*tasya cha evá áno.* आनः vital breath.

Asu, seems used for the verb सन्तु *santu*—or it may be आयु instantly.

"The beloved of the gods doth not esteem either charitable offering or puja, as comparable with true glory. The increase of blessing to himself is of as much (importance) to all unbelievers."

For this purpose have been spread abroad ministers of religion, ministers possessing fortitude of mind, and practisers of every virtue* : may the various congregations co-operate (with them) for the accomplishment therefore. For the increase of converts is indeed the lustre of religion.

Thirteenth Tablet.

..... Whose equality, and exertion towards that object, exceeding activity, judicious conduct afterwards in the *Kalinga* provinces not to be obtained by wealth the decline of religion, murder and death, and unrestrained license of mankind ; when flourished the (precious maxims) of *Devánampiyo*, comprising the essence of learning and of science :— dutiful service to mother and father ; dutiful service to spiritual teachers : the love of friend and child ; (charity) to kinsfolk, to servants (to brahmans and sramans, &c. which) cleanse away the calamities of generations : further also in these things unceasing perseverance is fame. There is not in either class of the heretics of men, not, so to say, a procedure marked by such grace, nor so glorious nor friendly, nor even so extremely liberal as *Devánampiyo's* injunction for the non-injury, and content of living creatures and the Greek king besides, by whom the kings of Egypt PTOLEMAIOS and ANTIGONOS (?) and MAGAS, both here and in foreign (countries) ; every where the religious ordinances of *Devánampiyo* effect conversion, wherever

Yeha, further, अब्ब 'and this.'

Ichhā kritásaya इच्छा कृति आशयः: wish, act, hope? perhaps the last word should be *sava*.

Ithaijha, स्मैष्ये fortitude of mind—whence *thairo* or *thero*.

* Or as in the opening remarks, three grades of ministers, *dhamma mahámátás*, *thaijha* (or *thero*) *máhámátás*, and *vividha kamikás*, subordinate or working agents.

Notes to the Thirteenth Tablet.

Pasamatá, &c. These words are all Sanskrit, प्रशस्ता तद्वीहना बुद्धिवता कर्मतन्त्रता: and they all apply eulogistically to *tasa*, whose ; but the name of the party thus praised is unfortunately erased.

Adhanaladhesu अधनलद्द not acquired or acquirable by wealth ; an epithet proving that the 'Calingæ oræ maritimæ' were in those days rich and populous.

Dhammaviyo अव waste, destruction of religion?

Apaváha; अपाह carrier of a burthen, that is being under restraint? *apaváha*, non-endurance.

Badhe बट to be powerful or large?—or better *vadhe*.

Achhata अच्छता purity समाचारो?—the rest is gone.

they go ; conquest is of every description : but further the conquest which bringeth joy springing from pleasant emotions, becometh joy itself; the victory of virtue is happiness : the victory of happiness is not to be overcome. That which essentially possesses a pledge of happiness,—such victory is desired in things of this world and things of the next world !

And (this place) is named the WHITE ELEPHANT conferring pleasure on all the world.

Fourteenth Tablet.

This religious edict is caused to be written by the heaven-beloved king PIYDASI. It is (partly) (written) with abridgment ; it is (partly) with ordinary extent ; and it is (partly) with amplification : not incoherent (or disjointed) but throughout continuous (and united) it is powerful in overcoming the wise ; and it is much written and caused to be written, yet it is always but the same thing repeated over and over again. For the persuasive eloquence which is lavished on each separate subject shall man the rather render obedience thereunto !

Furthermore, at one time even unto the conclusion is this written, incomparable in manner, and conformable with the copy, by RELACHEPU the scribe and pandit.

Yona raja, see opening remarks.

Pitiraso sáladha प्रीतिरस सुकृतः: for want of a better interpretation !

Man, this syllable more than once repeated may stand for *mangalam*, commonly written मं in Sanskrit Manuscripts.

Násarasuke, मंगलं न्यासरसक् conferring permanent happiness, न्यःस a pledge.

Swelahasti, written, *pasti* on the cloth copy :—also *pará loka*, which I correct to *sara* by the addition of a stroke to the *p*—the *p*, *h*, and *s* are frequently mistaken inter se by the transcriber.

Notes to the Fourteenth Tablet.

Sankhitena asti संचित्वेन abridged. See Páli grammar, page 133, *pubbena gáman*, east of the village, for this use of the 3rd case.

Majhamena, मध्यम middle, mean : *vistitena विस्तृत* spread.

Nárayaram, compounded न and अवयव divided into syllogisms?

Pavata or *sarata*, on rocks, or every where. घटित devised, attempted, in contact with.

Likhapáyisam, for *payitam*, resembles the inflection still retained, *páyis*, finding.

Punepanavatam, पुनःपुनं तं done again and again.

Mádhúritáya, माधुरिता sweetness, figuratively.

Asamátam, आसमाप्ति to the conclusion.

Sachháya káranancha, सच्चय करण् an act with a shadow or copy?

Pandithena, the the should be *te*; it may be पांडवेन by one of the *Pandava* caste.

REMARKS, *On the first edict.*

The understanding of the opening sentence of this edict baffled me for a long time because of the separation of the word *kanchi* by the termination of the first line—*idhanakam chijivam* was the obvious and unintelligible reading; for it must be remarked that throughout the *Girnar* and *Cuttack* inscriptions the words are all run into one another, Sanskrit fashion, and we are deprived of the material help afforded by their separation on the *Delhi* pillars.

There is also more uncertainty in the value of many of the letters particularly the vowels, in this than in many of the following edicts; probably from its being at the top it was more exposed to the weather and less accessible to the copyist. I cannot therefore be satisfied with my translation until I get a facsimile.

It seems to have been a common practice with Buddhist kings to commence their reign by proclaiming a prohibition of the destruction of animal life. Thus in the second *taranga* of the *Rāja Tarangini* the following account of the first act of MEGHAVÁHANA*, a Buddhist sovereign of *Kashmir* of the third or fourth century:

तस्याभिषेक एवाज्ञां भारयन्तोधिकारिणः ।
सर्वतोमार सर्यादा पठहानुद्घोषयन् ॥
कल्याणिगायालिवधे तेन राज्ञानिवारिते
निष्पापां प्रापिताहृत्तिं स्वकोषात् शौनिकाद्यः ॥
नस्यराज्येजिनस्येव भारविद्विषणः प्रभेः ।
कौटैष्टतपश्चः पिटपशुभूत वलावभूत् ॥

" At the time of (MEGHAVAHANA's) coronation, his ministers by his command sounded the drum in all places for the prohibition of slaying.

" The killing of living beings being restrained by the prosperous king, his ministers obliged (the people) to resort to sinless occupations according to their several means.

" In his reign, who equalled JINA (Buddha) the successful opponent of KA'MA an animal for sacrifice was made (in effigy) of cakes and clarified butter."

The expression *ekáchá samája sádhumatá*, might almost be interpreted, ' the worship of ONE is wholesome for the congregation ;' but it is remarkable that throughout the document there is no mention of the deity, or any object of direct worship. The sacred DHAMMA, ' virtue,'

* This name reminds us forcibly of the epithet of AIRA RAJA at *Khandgiri* :— I find no account given of its origin, but the pandit supposes it may have been a title obtained from his invasion of *Ceylon*, to which island (being befriended by VARUNA) the Cashmire raja was conveyed without touching the water.

or ‘the law’ is held forth as the great rule of conduct, and future happiness or punishment are inculcated as the motives, but neither BUDDHA, nor any member of the Hindu pantheon is introduced by name or allusion. I dare not imagine that by the expression—*raja asti pitu*, it is intended that the rāja was a deified object, to whom alone reverence (*ekórchá*) was to be paid.

On turning to the infallible *tika* upon our inscriptions afforded by Mr. TURNOUR’s admirable *Mahawanso*, we find a circumstance recorded which may help us materially to understand the obscure passage relating to the *mahiñaso* or kitchen. It seems that ASOKA followed for three years the example of his father in bestowing food daily on sixty thousand brahmans. On the change of his faith the brahmans were discharged, but an equal number of Buddhist priests were maintained in their stead, and their food doubtless was of a more simple and harmless nature.

*Tato rájá pasanno so digunena dine dine
Bhikkhu satthi sahassáni anupubbenupaṭṭhahi.
Titthiyánan sahassánan nikkadḍhiwána satthi so,
Satthi bhikku sahassáni ghare nicchamabhojayi.*

‘Thereafter this king increasing the number from day to day gave alms to sixty thousand Buddhist priests as formerly (to the brahmans). Having dismissed the sixty thousand heretics, he constantly maintained in his palace sixty thousand Buddhist priests.’

[For remarks on the second tablet see the February number.]

Remarks on the Third Tablet.

Nothing in this edict calls for particular notice. The term *vijite* conquered country is, as in the second edict, applied to *Suráshtra*—not to *Cuttack*. The appointment of an *anusayanum* or feast of repentance, every five years, is unknown I believe to the religionists of either denomination nowadays; though its efficacy in removing sin is acknowledged by MANU.

त्वापनेनानुतापेन तपसाध्यनेनच । पापकृनुच्चते पापैर्दानेनचदमेनच ।

‘By confession, by penitence, by fasting, by reading the sacred texts, the sinner is absolved from his sins, also by almsgiving, and by restraint of the passions.’

Did not the two texts agree, it would be preferable to read *anusásanam*, a public promulgation of the sacred maxims every five years, otherwise it does not well appear why their specification should here be introduced. Of the maxims themselves it is also worthy of notice that they are not conformable to any particular creed—they comprehend neither the eight *márgas* (ways); not the four *satyas* (truths) of the

Buddhists; nor yet the five great sacraments*, nor the four domestic sacraments of MENU†.

They are all however frequently alluded to as good acts, and the brahmans do not yield to their rivals in applauding either humanity to animals, or charity to one's neighbour.

The word *puriśápiyuto* seems derived from *parishat*, an assembly, S. परिषद् the president of the assembly.—It would seem that names had not been assigned to the grades of priesthood by the use of this and other general terms *mahámátá*, &c. throughout the inscription, or that it applied to no particular sect.

Remarks on the Fourth Tablet.

The publication 'by beat of drum' here alluded to may reasonably be supposed to be the very one recorded in the Ceylonese annals as having taken place on ASOKA's hearing of the construction of the various viháras throughout his kingdom;—[*Mahawanso*. Epit. p. 37.]

Lekhe sutwá, mahárájá, mahátejiddhi wikkamo,
 Kátu, kámo sakinyewa sabbá ráma mahámahan,
 Purabherin charápési “ sattame diwase ito
 Sabbárámamaho hotu sabba desesu ekadá.”
 Yojane yojane dentu Mahádánam mahítale.
 Karontu gámárúmánan maggánancha wibhúsanan.
 Wiháresu cha sabbesu bhikku sanghassa sabbathá,
 Mahádánáni, wattentu yathá kálan, yathá balan,
 Dipamálá pupphamálá lankáre cha tahin tahin,
 Turiyehi cha sabbehi upahárun anekadhá.
 Upasathangá nádáya sabbe dhamman sunantu cha,
 Puýewisése nekecha karontu tadahú picha.

“ Having heard these dispatches read, the glorious, the superlatively-gifted, the victorious sovereign having resolved on having a great festival of offerings at all the temples at the same moment caused to be published by beat of drum through the capital; ‘ On the seventh day from hence throughout all the kingdoms in the empire let there be a great festival of offerings held on the same day. Throughout the empire at the distance of each yojana let there be great offerings bestowed. Let there be decorating of the roads to villages as well as temples. In all the viháres let almsgiving to the priesthood be kept up in every respect, as long as practicable, and liberally as means will allow.

“ At those places decorated with festoons of lamps and garlands of flowers in various ways and joyous with every description of music, let a great procession be celebrated, and let all persons duly prepared by a life of righteousness, listen to the doctrines of the faith, and let innumerable offerings be made on that day.’ ”

* पाटोह्वेसस्यातिथीनां सपर्या तर्पणं बच्चिः । एतेष्वमहायज्ञा ब्रह्मयज्ञादिनामकाः reading the Veda, sacrifice, of the *homa*, hospitality, offering to manes, &c. grace at meals (libation to the gods). *Amera cosha.*

† The domestic sacraments differ only in the omission of the *homa*. MENU Chap. II. 86.

The ambiguous terms (alluded to in the notes) *vimana dapaná*, *hassi dapaná*,—may be the titles of some particular discourses of BUDDHA, ‘the mirror of grief’ and ‘the mirror of hilarity’—for we find the next expression *agikhandháni* (though it should be in the singular rather than the plural) is explained by MR. TURNOUR to be the parable of the “hill of fire,”—a celebrated discourse of BUDDHO, which had special effect in the conversion of distant nations: thus in the *Mahawanso*:

Gantwá parantakán théró Yónakó Dhamma akkhitó
Aggikkhandhópmánsuttán kathetwá janamajjhagó.
So sattatisa sahassán páne tat hár samágaté
Dhammámátá mapayési dhammádhammesu kówidó.
Purisánám sahassancha, itthiyócha tatodhiká,
Khattiyánán kulháyewa nikkhmitwánupabbajun.

‘The théró yónako DHAMMARAKKHITO repairing to the *Aparantaka* country in the midst of the populace preached the “aggikkhandópuman” discourse (of BUDDHO). This (disciple), who thoroughly understood how to discriminate true from false doctrines, poured out to the seventy thousand who had assembled before him the delicious (draught of the) true faith. A thousand males and a still greater number of females, descendants exclusively of *khathiya* families, pelted by their unreligious ardor, entered into the priesthood.’

Remarks on the Fifth Edict.

The deputation of missionaries to different countries is particularly described in the *Mahawanso*, Chapter XII. of which I here annex the translation only, as the passage is rather long.

“The thero son of MOGGALI, having terminated the third convocation, was reflecting on futurity: perceiving that the times had arrived for the establishment of the religion of BUDDHO in foreign countries he dispatched severally in the month of ‘Kattiko’ the following theros to those foreign parts.

“He deputed MAJJHANTIKO to *Kasmira* and *Gandhára*, and MAHADEVO to *Mahisamandalam*: RAKKITO to *Wanawasi*, and YONA DHAMMARAKKHITO to *Aparantaka*. He deputed MAHADHAMMAKKHITO to *Maharatta*, and MAHARAKKHITO to the *Yona* country: MAJJHIMO to the *Himawanta* country and to *Sowanabhumi* the two theros SONO and UTTARO. He deputed MAHAMAHINDO, together with his (MOGGALI’s) disciples ITTIYO, UTTIYO, SAMBALO BHADDA-SALO (to Ceylon), saying unto these five theros, ‘Establish ye in the delightful land of *Lanka* the delightful religion of the vanquisher (*Jina*).’”

The only places in the above list which agree with the more authentic record of our inscription are *Gandhára* and *Aparantaka*. The former of these is known as the country of the *Gandaridæ* or *Gandarii* of STRABO and HERODOTUS. Professor WILSON has collected all that can throw light on the position of this nation in his notes on the History of Cashmír, As. Res. XV. 104. That it was situated in the Panjáb there is every reason to conclude, and now that we know the Buddhist

sources of information open to the Egyptian geographers we may adopt PTOLEMY's locality—"Inter *Suastum* et *Indum* sunt *Gandarae*," with confidence. *Candahar*, if one of the Alexandrias, must be thrown out of the question.

Aparantaka of the *Cuttack* text I should have translated as the uttermost boundary 'place having no beyond'—the ultima Thule in short of the BUDDHISTS; were it not accounted by MR. TURNOUR, as a distinct country, one however as the glossary tells us "not yet identified." The mode of spelling the word at *Girnar*, (*Aparāta*,) may help us in identifying it with the *Aparytæ* of the Greeks—for HERODOTUS couples this nation with the *Gandarii* as having served in the army of XERXES Σατταγύδαι δε και Γανδάριοι κατ Δαδίκαι τε και Απαρυται—formed together the seventh prefecture of the Persian empire, under DARIUS HYSTASPES. Who the latter were, professor WILSON says is still dubious—the name he adds may be derived from *apara* ulterior or *western*, and thus the sense reverts to my first supposition. But the inscription has *aparátábhata-mayesu*, in the boundaries of *aparátábhata*; a term more nearly agreeing with the reading of the Ptolemæan name by ISIDORE—*aparabartica*, which RENNELL converts into *apárbatata* a low-lander*.

Kambocha, must be the *Camboja* so often mentioned in WILFORD's essays, and by him, I know not on what authority, always classed with the mountainous tract of *Ghazni*.

Pitenika or *Peteni* may certainly be the *Plithana* of the *Periplus*, which DR. VINCENT, following WILFORD, establishes as *Pultana* in the *Dakhan* about twenty days' journey south of *Barugáza*, or *Baroach*, a mart of some importance in the time of ARRIAN. It may however be objected that all the rest of the names denote countries not cities, and that *Pultina* seems too near home to be mentioned among countries out of India proper; yet I can hardly concur with WILFORD's speculations regarding *Paithinistán* and carry it all the way to Egypt, notwithstanding the alliance with PTOLEMY†.

Of *Suláthika* in the *Cuttack* text, all I need remark is that its omission at *Girnár* is so far evidence that *Kattywar* or the *Gujerát* peninsula was included in the district of *Suráshtra*,—*Tes-suriosta* or *Surastrene* of the Greeks. Further the orthography of the name both here and in a Sanskrit inscription which I shall soon have occasion to describe, is *Surashtra*; not *Saurashtra* as modern authors generally write it. And the Greek orthography is therefore the more correct.

Of those names of countries which are indistinct in the two texts it is unnecessary to say any thing until we obtain a more correct copy.

* WILSON, *As. Res.* XV. 104.

* *Asiatic Researches*, III. 338.

The only other name that occurs is one of some importance and celebrity, being no less than *Páṭaliputra* itself the capital of the *Mauryon* dynasty of *Magadha*, known as such in the Buddhist annals, and in the Greek authors as *Palibothra*. In Sanskrit it is written with precisely the corresponding orthography, पाटलिपुत्रः, but in the Buddhist annals we find sometimes *Patiliputto*, with the dental *t*. No clue is afforded of the position of the town by the inscription, but it is remarkable that the name is omitted at *Dhauli*, and in its stead the expression *hida cha* ‘here’—‘at home’—as contrasted with *báhilesu cha*, or *báhiresu*, ‘without, abroad, among foreign countries’ वाञ्छेषु. Of *hida*, for इदा more will be said when I speak of the dialect.

Remarks on the Sixth Tablet.

I was inclined at first to look upon the *prativedaka*, as a kind of *khabar navis* or newswriters appointed every where to send information to the sovereign of what was going on among the people, as is universally the practice with native courts at this day:

Or again the recurrence of the word *atham* (*artham*) which means wealth, riches, as well as interest, object, might induce some to consider them inspectors appointed to assess the wealth of the people,—for the collection of revenue, *arthasanstirana*?

But the sense adopted is preferable, and we may either regard this edict as setting on foot an extensive system of national education (an education in which conduct through life was the thing taught)—or a system of judicial administration to take cognizance and decide on all departure from the moral law—and this latter is the more likely, because the mention of *atyáyaka* or agents of punishment immediately follows.

The adjudication of punishments is treated of at greater length in the west compartment of the *Delhi* pillar, the correct interpretation of which is still a desideratum.

Remarks on the Seventh Tablet.

The only remark which it occurs to me to make on this short sentence, relates to the last word *báḍham*, which I stated, in my translation of the inscription round the shaft of the Feroz lát at *Delhi*, not to be Sanskrit. True it is not to be found in WILSON's Dictionary nor in COLEBROOKE's *Amera cosha*, but KAMALÁKÁNTA informs me now that the word बाढ़ *báḍham* frequently occurs in Sanskrit works. Thus, in *Bhavadeva Bhatta's Dasakurma* this word is given with the signification of assent “yes.” The guru is instructing the noviciate what he is to do, ब्रह्मचारी सर्वत्र बाढ़सिति ब्रूयात्, ‘the pupil answers to all this

“ *bádham*” or yes. ગાંઢ બાંઢ વાંઢ પ્રાંઢ are expletives used to complete verses according to the *Kavikalpalata*.

The sense therefore of the pillars entence—*Dhammavadhiyácha bádham vadhisati*, should be “ and by the growth of grace, assent will also increase.”

Remarks on the Eleventh Tablet.

I am not sure whether in lieu of the sense adopted in the translation of this sentence, we should not understand by *dhamma dánam*, the gift of *dharma*, or religion;—which gift transcends all other aims inasmuch as it brings the blessings of this world, and eternal happiness in the next,—and the *anantam punñam*, or endless moral merit will thus accrue not to the mere obeyer of the moral maxims inculcated, but to the sovereign who bestowed so great a gift on his subjects. More competent scholars must decide this point.

The *Cuttack* text does not contain a copy of this edict, which may be accounted for by its being in substance a repetition of a part of the preceding edict. The word *mitasasuta*, though it occurs twice in the course of the short paragraph is by no means a satisfactory reading—it looks in the original more like *mita sastata*, a facsimile will probably remove this ambiguity.

Remarks on the Twelfth Tablet.

That this edict should likewise not be included in the *Dhauli* series may be explained, by supposing that the Buddhist religion already predominated in the *Kalinga* provinces, and that therefore there was less necessity to prescribe rules of conduct towards those who were well inclined to become converts than others. By *apta* and *para-pásanā*, I should have understood well-disposed and obdurate heretics, had not the concluding sentence. ‘the increase of the *aptapásanās* is the splendour of religion’ shewn that the former must be rendered heretics actually converted, or converts.

The continual recurrence of the same words makes it nearly impossible to give an elegance to a translation which I strive to preserve as literal as possible; there are also not a few ambiguities which cannot be cleared until we have an actual facsimile. In fact I have had more trouble with this than most of the foregoing tablets. Having merely a dictionary for my guide I am perplexed how to translate such an expression as *Sáravadví*, સારવદ્વિ: *sára* has a dozen meanings, pith, essence, vital part, substance, marrow, wind, sickness, cream, firmness, water, wealth, propriety, steel, climax! but none of these applies to the condition, that, increased in the king, it should also be increased in all heretics. What constituted his *glory* would also constitute theirs, namely,

their conversion ; it must then be connected with *kirti* ; the ‘*pith*’ of his religious merit or glory, must be a blessing or salvation, and by this periphrasis have I therefore ventured to translate the term, which as the basis of a strong and magnanimous argument is twice repeated in the course of the paragraph.

[For the Thirteenth tablet see the opening remarks.]

Remarks on the Fourteenth and last Tablet.

When I first transcribed this tablet to read it over with the pandit, he exclaimed at the word *sankhitena*, and wondered at the ignorance of the scribe who could have pretended to call such corrupt and illiterate language by the sacred name of *Sanskrit*. A little inquiry however convinced us that the word *sanskritam* was always written *sankotam* in *Páli*, while the *Páli* word *sankhittam*, with double *t*, regularly represented the Sanskrit संक्षिप्तं ‘abridged.’ Thus in the second line of the Mahawanso itself we find almost the very expressions in the paragraph before us :

*Porúncchi katopeso, atiwitthórito kwachi,
Atiwakwachi sankhitto, aneko punaruttako.*

Which the Hon'ble Mr. TURNOUR thus translates :

“ That which was composed by the ancient (historians) is in some respects too concise, in others too diffuse, abounding also in the defects of tautology.”

The resemblance here to *asti sankhitena*, and *asti vistatena*, is remarkable :—and in *aneka punuruttako*, we perceive an analogy to *etakam punepunavutam*.

It might be objected that *pt* is never in the *Girnar* text contracted to *tt*, but is written at length, as in *chaptáro*, *ápta*; but here again it may be answered that the *p* in *apta* was necessary to distinguish it from *atta*, the Sanskrit *átma*, which in *Páli* proper is written *atana*.

Another example may be quoted from the preface to Mr. TURNOUR’s work, wherein the words occur as in our text, in the third case.

It is a citation from the commentary on the *Rupa siddhi*, speaking of KACHCHÁYANO the grammarian, (KATYA'YANA:)

“ *Tabbansi kóccháyomiti Koccháyano, kocháyan,
Kaccháyanó náma? Yo etad aggan, Bhikkhawé!
Mamo sáwakínañ bhikkúnañ sankhitténa
Bhósítassa wittháreno athán wibbajantánoñ
Yadidañ mahákachcháyanoti etod aggé thapito
Bhagawá mán chatuparisó mojjhé nisinnó.* ”

(If I am asked) who is this KACHCHÁYANO? whence his name KACHCHÁYANO? (I answer) It is he was selected for the important office (of compiling the first *Páli* grammar): “ Bhikkhus, from amongst my sanctified disciples, who are capable of elucidating in detail that which is expressed in the abstract, the most eminent is MAHA'KACHCHÁYANO.” Thus said BHAGAWA' seated in the midst of the four classes of devotees (of which his congregation was composed).

But there is no occasion to go further:—all will acknowledge that the language of the inscription is not Sanskrit.—What is it then? To answer this question I must solicit still a little space. First however I must take a review of the *Girnar* alphabet, for it is evident that it contains many additions to the more simple elements of the pillars. These additions, to which only I have time to allude, will be found to complete the alphabet to the existing standard of the Páli of Ceylon.

§ 1. *Completion of the Alphabet.*

The most remarkable change observable in the alphabet has already been noticed in my paper of last June, namely the substitution of the letter *l* for *J* in all words now written with an *r* in Sanskrit, but on the pillars spelt with an *l*, as ज् ख् न् ल् त्, &c. now corrected to र् ख् न् ल् त् *rája, dasaratha*, &c. Although there are many words in the Sanskrit in which the use of the *l* and *r* is indifferent, still the invariable employment of the former liquid, does not appear to have been ascribed to any of the numerous *Prákritis* or even the *Apabhránsas*, by the Sanskrit grammarians. In a succinct account of the peculiarities of the latter extracted by the learned Prof. LASSEN from the *Prákrit* grammar called *Kalpataru*, we find only one allusion to the intermutation of *r* and *l*:—

स्याद् द्राविडो नस्य चिपर्यं या स्यात्यजा स्याद् रल्पर्यं।

Siet Drávidí litteræ *n* permutatione, Páschátyā immutatione *r* et *l*.

Now the *Páschátyajá* are those born in the west (of India), and we should thence expect the *Gujerát* orthography rather than that of *Cuttack, Delhi* or *Allahabad* to be deficient in the distinction of the two liquids, unless indeed the term were employed by a writer of Bengal, for they like ourselves give the name of western provinces (*sc.* of this presidency) to all west of *Allahabad* and the Ganges; and of east, only to those east of *Patna*. The exclusive use of *l* belongs to the Chinese family of nations.

Of other letters made known by the *Girnar* tablets we may notice first in order the *l* or *gh*, which can no longer be denied a place, or confounded with any other letter, because it now occurs in the well known word *gharistáni* (*S. grihastáni*), and in *megha, ghara, gháta*, &c. of the *Kalinga* and *Sainhadri* inscriptions. These words it must be observed occur only in those tablets of the *Cuttack* inscription wherein the letter *l* is used, and which so far resemble in dialect those of *Girnar*. The orthography of *grihastáni* on the pillars is *giritháni*. It does not therefore follow necessarily, though there is every probability thereof, that the *g* is never used for *gh*; but when we find the aspirate pre-

sent in other words of the same monuments, such as *ghanti*, *sanghathasi*, &c. we are bound not unnecessarily to aspirate the simple *g*, where it can be read without doing so. Thus the word *agu* of the inscription must be read as *agra* अग्र, rather than *agha*, अघ; and Mr. TURNOUR's reading of *agáya* and *agena* in the opening of the pillar edict is correct; while my own reading, *agháya*, *aghena*, must be abandoned. I am the more anxious to acknowledge my error, and make the amende to my friend, our *only* Páli scholar, because at the end of the sixth tablet we find the same adjective employed:—*idam añuta agena parákamena*, 'this with the utmost respectful force,'—here the sense insisted upon by my pandit of 'than which all else is sinful' cannot certainly be applied to *parákrama*, heroism, on account of the context.

The nasal of the first class of consonants, or gutturals has not been yet recovered, because its place is generally supplied by the *anuswara*; but in one or two places I think the ङ may be traced in its primitive form of ञः at any rate it may be safely *constructed* so, from the analogy of the form in the No. 2 alphabet ञ also found on the coins in the name *Simha vikrama* (written sometimes शिंह singha), and from the more modern form of the Tibetan ས ng.

The letter *jh* झ, is of rare occurrence, even in the Sanskrit. It is not therefore to be wondered at, that we should be tardy of discovering it in the ancient alphabet. Yet in *Páli* this letter takes the place of the Sanskrit व in *madhya*, *madhyama*, 'middle,' and perhaps of *rj* in *nirjita* and of *rdy* and *rjj* and other similar compounds which in pronunciation assimilate to *jh*; and it is thus more likely to be found in a Páli than a Sanskrit monument. On my first review of the pillar alphabet I was inclined to look upon the letter फ as *jh*, from its occurrence in the word घ फ घ *majhimá*, coupled with *ukasá* and *gevayá*, domestics and ascetics, but it seemed better explained by *ri* in other places. A similar expression in one of the *Girnar* again leads me to consider it as *jh*, viz. 'sankhitena, majhamena, vistitena,' where the central word is written घ फ घ both in the *Girnar* and in the *Dhauri* versions of the concluding paragraph. Again in the pillars it is generally inflected with the *i* or the *á* vowel mark, which could not be the case with *ri*; and lastly, it bears considerable affinity to the Bengali झ *jh* which also resembles the *ri* of the same alphabet; I therefore now pronounce फ without hesitation to be a *jh*; and I must modify former readings accordingly*.

* This it is not difficult to accomplish: ex. gr. in the western tablet of the Feroz Lát, *násuntan níjhipayitá dinam dahanti*, may be Sanskritized as follows: नाश्वतनि ज्ञाता

The next form of *n*, belonging to the *cerebral* series, has already been made known to us from the *Suinhadri* cave inscriptions, ।; and the modern derivative forms were on that occasion described (see page 1045 of volume VI.) In the present inscription this *n* invariably follows the letter *r* as in Sanskrit; ex. gr. D·४६ | ।. *Dhammadharanam* ‘the progress of religion.’ The vowel affixes are united to the central perpendicular stroke as ॥॥॥ *ne, ná, no.* A few words written in Sanskrit with the dental *n*, are found in the inscription written with ।, as *jana-sa, dasanam* (7th and 8th tab.) and the same holds good of the grammatical Páli of books. It should be remembered that in the regular *Prákrit*, this is the only *n* which ever stands singly in a word.

The only letter of the labial series which was yet wanting to us, the *ph*, is most fortunately recovered through the indubitable expression *málini cha phaláni cha* in the second tablet of *Girnár*—‘both roots and fruits’—written ॒ न ज्ञाद् बज्ञाद्. In the letter ब we at once perceive the prototype of the ॒ of No. 2, and the ॑ of the Tibetan alpha-
पायित्वा दानं दास्यन्ति, ‘expelling the murderer (from the town or community) they shall give him an arms.’ And in the edict regarding animals,—*ta se sajive nojhápayitaviye*—‘such while life remains shall not be abandoned,’ उत्तमापयितव्यः and in the last tablet for *dharma niyame nijhuyitá bhuye*, read निर्जत्यभवेत् ‘the rules of dharma shall be invincible.’

bet : and we see the reason why this was departed from in the Nágari form, ष, by turning the stroke outward, lest by turning inwards it should be confounded with the ष or *sh*, a letter unknown in our old alphabet. With reference to my former remark on the duplication of alphabetic forms to produce the aspirates, it may be adduced as an additional argument for such an assumption that in the oldest of three plates from *Kairā* with copies of which I have been lately favored by Dr. A. BURN, the *ph* of the word *phala* is twice written ष्ष or *pp* in lieu of ष ; which is the augmented or aspirated form used in the other plates, and which is more consistent with the original type now disclosed to our knowledge.

Of the *bh* I would merely take this opportunity of noticing that I have discovered the period and cause of the two very opposite forms of this letter which are found in later alphabets, as for instance the Mahratta ष and the Tibetan ག (which agrees with the Devanágari or Kutila of the 10th century ག) and have proved them both to descend from the original ། ; the Mahratta may be said to follow naturally from the *Sainhadri* form ; the other I have traced on the Saurashtra coins of SKANDA and KUMARA GUPTA, where sometimes the one and sometimes the other form is employed, the latter being the natural course followed by the pen in imitating the sculptured letter །, beginning at the top, viz : །, whence would gradually follow ག, and ष with the headstroke, common to all the modern characters.

The Páli contains but one *s*. We cannot therefore expect to find in our ancient alphabet the prototype of either the Sanskrit ष or ष. Of these letters I only notice the early forms because I have inserted them in the accompanying lithographed plate. The modern form of ष would seem to be derived from the ष of the Samudragupta or No. 2 alphabet, where again it might be presumed that it was introduced as a trifling modification of the letter ष, or *s*,—in fact, by closing the outer stroke or doing the same thing to this as was done to the *p*, to have the effect of duplication or aspiration. Or, it may be more proper to consider it a *written* modification of the more ancient form ष found on the copper-plate grants of the third century dug up in the *Gujerat* peninsula, whence the transition is more evident and palpable to the various Páli and Sinhalese forms, the Cashmere form and even the modern Nágari and Bengáli.

It is not so easy to trace the origin of the *táliba sha*, ष, in the old alphabet but there is plausible reason to suppose that this was originally merely the *murdina* or cerebral *s* ष, turned in an opposite direction, invented to denote another modification of the sibilant required in the refinement of the Sanskrit alphabet. In the oldest Guierátí plates, these are writ-

ten ፩ ፪ ; and exactly the same structure is retained in the square Páli alphabet or stone letter of Barma, except that the stroke in the centre is contracted into a dot, ፫ ; further they are merely rounded in the modern Burmese for the facility of writing, ၁၂. In no other alphabets that I know of are the analogies to the original type so faithfully preserved as to shew that these two sibilants were originally the same letter reversed in position, a mode frequently adopted, as I have had occasion to notice before, in Indian alphabets to represent slight modifications in sound, (see vol. VI. p. 475-6.)

The most ancient *Sanskrit* form, however, of the táliba *sh* is one I have just discovered on a genuine inscription of the time of CHANDRAGUPTA, where it is written ፭ and ၮ. This type is evidently the original of the form so common on early Hindu coins and inscriptions, ፲, whence are directly descended the Tibetan ፭, the Bengálí ፳, and the modern Nágarí ፻, which heretofore presented a kind of anomaly in the derivation of our alphabetical symbols.

Having thus recovered the complete, and as I consider it the primeval alphabet of the Indian languages, I have arranged in the accompanying plate the changes each letter has undergone in successive centuries, as deduced from absolute records on copper or stone. The table furnishes a curious species of palaeographic chronometer, by which any ancient monument may be assigned with considerable accuracy to the period at which it was written even though it possess no actual date.

I begin with the sixth century before the Christian era,—because I suppose that the alphabet which we possess, as used by the buddhists of a couple of centuries later, was that in which their sacred works had been written by the contemporaries of BUDDHA himself, who died in the year 543 B. C.

What in some measure confirms this hypothesis is, that the *Sanskrit* character of the third century before Christ, (of which I have introduced a specimen in the plate from the genuine document above alluded to*,) differs only so much from the original form as the habits of a class of writers distinct in religion and more refined in language might naturally introduce :—just as we afterwards find an equal degree of modification from the type of ASOKA's time, in the Sanskrit alphabet of five centuries later, on the pillars.

The ASOKA alphabet (the Sanskrit one) agrees very closely with that of our *Surashtra* coins, which may thence be pronounced to be anterior to the Gupta series. The *Gujerat* plates dated in the third century of the samvat era, differ but little from the *Allahabad* pillar or *Samudra-*

* I hope to be able to insert an account of this inscription in my next journal.

gupta inscription, but that little is all in favor of their superior antiquity.

Of the more recent alphabets it is unnecessary to say any thing. The Tibetan is acknowledged to be of the seventh century. The *Kutila* alphabet is taken from the inscription sent down in facsimile by Colonel STACY from *Bareilly* :—we learn thence that the artist was of *Canouj*, and we see that the Bengali, which was drawn from the same focus of learning near a century afterwards, does not differ more from it, than the modifications it has undergone since it was domiciled in the lower provinces will explain ;—indeed all old Sanskrit inscriptions from *Benares* to *Cuttack* differ only from the *Kutila* type in having the triangular loop, *କ*, instead of the round one *ଙ*.

A hundred other modifications of the primitive character might be easily introduced, were I to travel southward or to cross to *Ava* or *Ceylon* ; but I purposely avoid swelling the table ; and include only those epochas of the Indian alphabet which can now be proved from undeniably monuments. On a former occasion (Vol. VI. p. 222) the *Amaravati*, *Hala Canara* and *Telinga* alphabets were traced to the *Gupta* as their prototype, and thus might others be deduced : but another opportunity must be sought of placing the whole in a comprehensive table*.

In conclusion, I may again regret that our priuters did not take for their standard the form that would have served to blend the Bengali and the Hindí into a common system !

§ 2. *Language of the Girnar inscriptions.*

I must now say a few ‘ last words’ on the language or dialect of the *Gujerat* edict as contrasted with that of the *Cuttack* copy, and the idiom of the pillars. The glossary which I have appended to the translation of each tablet has almost anticipated all I might have reserved for this branch of my discussion. Reading, as Mr. TURNOUR justly observes, through a Sanskritized medium, with a pandit at my elbow, and without a Páli dictionary (if such a thing exists), my only method of coming at the sense has been by finding corresponding Sanskrit words in every case ;—and so close is the analogy of the two languages, that in most cases little more was necessary than to subjoin an *r* after a *p*, or a *y* after an *s* ; and to change final *o* into the *visarga*.

All doubt as to the pre-existence of the Sanskrit in its purest state being set aside by the simultaneous production of a monument of ASOKA’s time, I need not trouble myself to prove the necessity of the existence of a higher and more remote model to account for the marked

* Captain HARKNESS has lately published a very useful volume of the southern alphabets, but none reach up even to our third series in antiquity.

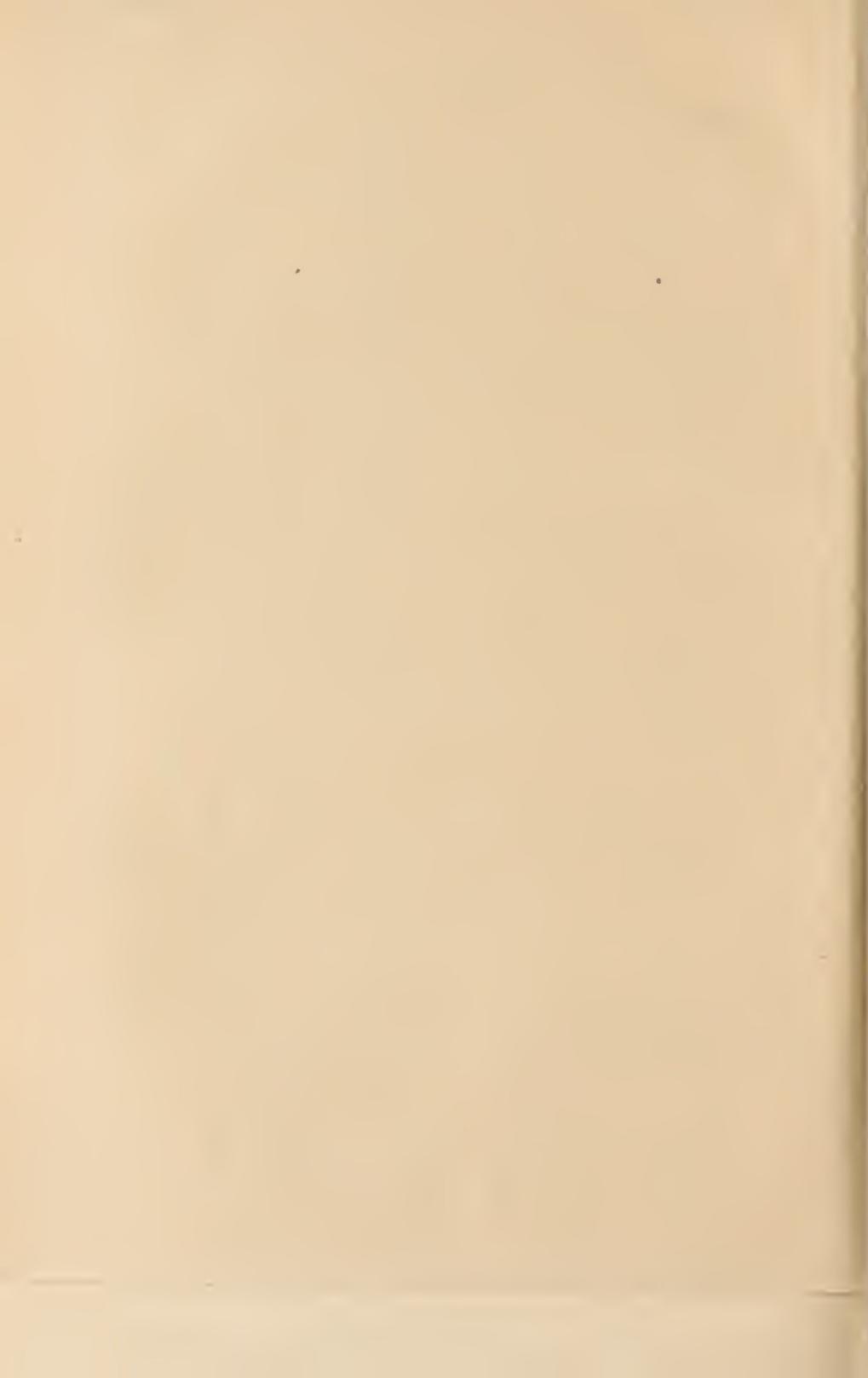
MODIFICATIONS OF THE SANSKRIT ALPHABET FROM 543 B.C. TO 1200 A.D.

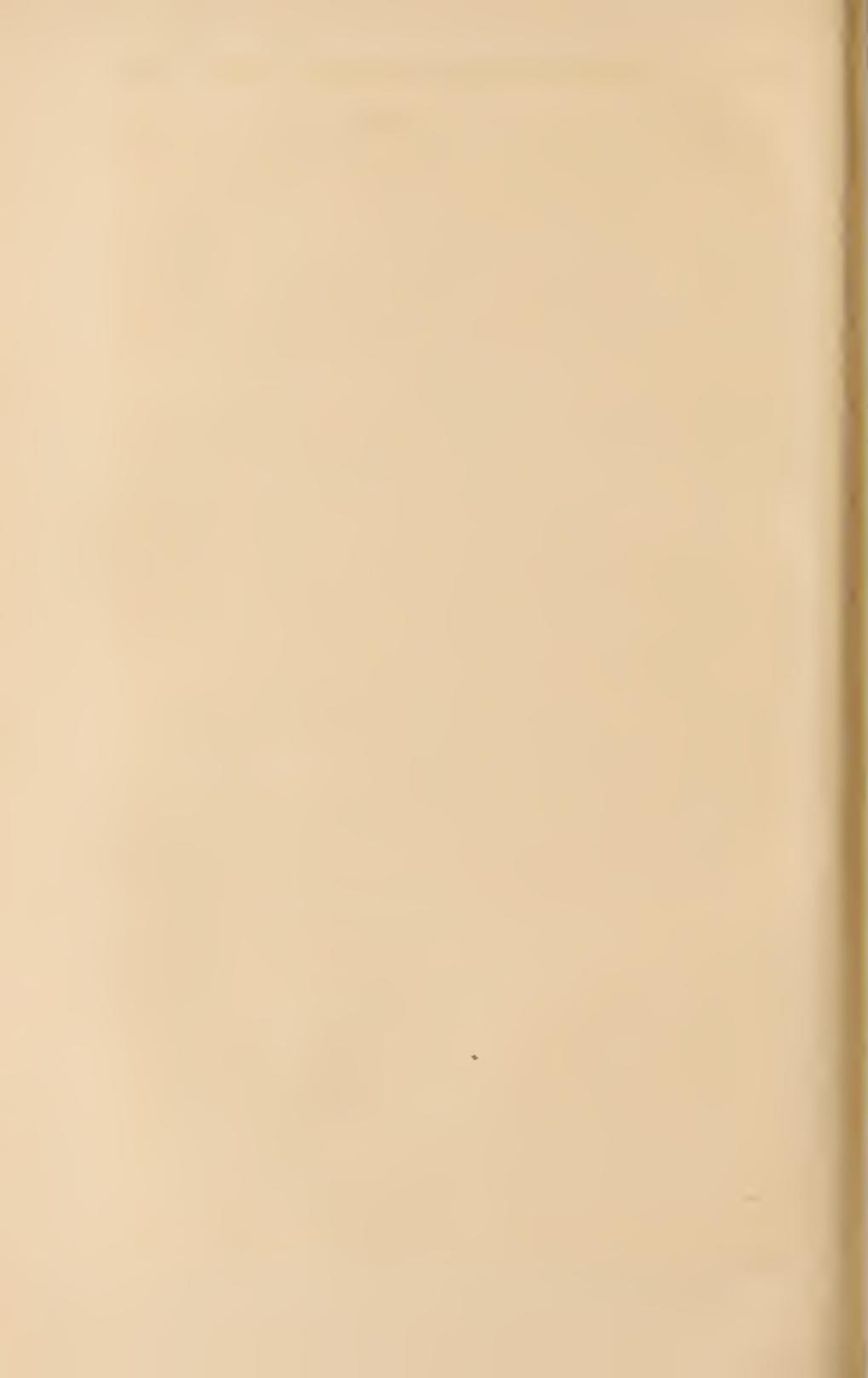
k h g gh n ch chh j jh n t th d dh n t th d dh n p ph b bh m y r l v h s s sh

OLD PALLI ALPHABET
OR THE GURMUKH
CHARACTERS WITH ADDITION

ତାଙ୍କ ମୁଖ ଏହାରୁ

କୁଳ ଦ୍ୱାରା ମାତ୍ରାଙ୍କ ପତ୍ର ମଧ୍ୟ ଲଭ୍ୟ ହେବାନ୍ତି





difference between the dialect of *Gujerat* and that of *Cuttack*. In the former we find *bhavati*, *asti*, is; *anusasti*, command; *ipta*, fit; following closely upon the Sanskrit etymology: whereas in the latter we have *hoti*, *athi*, *anusathi*, *atta*, as in the modern Páli. It would be a process of inversion indeed to derive the former from the latter, while we have the instances of French, Italian and Latin before our eyes.

The dialect of *Girnar*, then, is intermediate between Sanskrit and Páli, or rather the pillar idiom; for Páli, so called, agrees in some respects better with one, in some with the other, and in orthography decidedly with neither!

Thus the word *idha* used at *Girnar* for इह *iha*, 'here,' is correctly the Páli term as may be seen in the long quotation about the erection of a *stupa* in *Ceylon* inserted in last month's journal.

The corresponding word in the eastern dialect is curiously modified to *hida*, a fact I only ascertained by the collation of the two texts, and one which at once opens an important discovery to aid our studies. In several of the *Dhauli* inscriptions the expressions *hidalokika páralokika*, —*hidaloka paraloka*, occur: at *Girnar* (13th tablet) we have also *ilokiká paralokiká cha*:—all these are evidently इहलोकिका पारलोकिकाच 'of this world and of the next world.' Now the opening of the pillar inscription which so much perplexed us has the same elements *hidata pálate*—इह पर or इहतोपारतः here and hereafter, a sense which at once renders the passage intelligible. The same may be said of *hidatakaye pálatakaye* in the north compartment.

The eastern dialect is remarkable for this species of cockneyism which, as far as I know, has no parallel in any of the grammatical Prákrits: thus the *h* is inserted before *evam* (*hevam*), *idam* and some other words beginning with vowels.

On the other hand (but this is also a cockneyism) the semivowel *y* is cut off in many words such as *athá*, *adá*, *ata*, *am* which are correctly spelt at *Girnar*,—*yathá*, *yaddá*, *yatu* (S. *yatra*) and *yam*. In these instances the pillar language is remotest from the Sanskrit. There is a singular exception however in the feminine pronoun *iyam* (S. इयं) which is preserved throughout at *Dhauli* and on the pillars; whereas at *Girnar*, *ayam* is made both masculine and feminine, as in modern (or rather written) Páli.

There cannot be a better test of the gradual change of language than the word *prati*, a prefix in Sanskrit extensively used, implying *relation*, *direction* or *return*. In the Páli of *Girnar* this is merely altered to *pati* पति by omission of the *r*. In the language of the pillars the same preposition is always written *pati*, पति with the cerebral *t*. The orthogra-

phy varies in the written Páli of books, being in Ceylonese *pati*, in Burmese *pati*; while in Prákrit, the rules of which generally change the hard to the soft consonants, *t* to *d*, *t̄* to *d̄*, the word is written पडि *padi* as पडिक्काइस्त्रिदि for प्रतिक्षा स्त्रिनि, &c. and perhaps we may recognize a final change into *par* in the modern *Hindi*, for instance in परोस *paros* from प्रतिरेश *pratiresa* vicinity, and other words.

Substantives suffer modifications not so great in extent, but equally remarkable, and significant of gradual corruption.

The word man may serve as an example: Sans. मनुष्यः *manushyas*; at Girnar, *manuso*; at Dhauli and on the pillars, *munise*; Páli *mūnusso*; Prákrit—? Bhákha, *mánvus*. Again the Sanskrit, पुरुषः *puruṣas*, is made at Girnar, *puruso* (?); at Dhauli, *pulise*; Páli, *puriso*, or *po-o*; Prákrit, *puriso*. In modern dialects it is only used as a Sanskrit word.

Of the changes undergone by the verbs a good example may be selected in the substantive verb *bhu*, *bharati*, be; which is found unimpaired in several instances at *Girnár*, though never so on the pillars;—*hoti*, the Páli form, sometimes takes its place in the *Girnár* tablets,—always on the pillars. The Prákrit changes this to *hodi*, होदि; whence it is further softened to है *hai* and है *hae* in the modern dialects.

ए॒ अ॑ and ए॒ अ॑ *asti* and *násti* (Sanskrit अस्ति and नास्ति) are also retained in the original form at *Girnár*: at *Dhauli* they became *athi* and *níthi*; whereas in Páli they are converted into *atthi* and *náthhi*. The future passive participle terminates as the Sanskrit in तय, *turya*, at *Girnár*, and *tariya* at *Dhauli*; while Páli makes it *tabba*; Prákrit *dabba*; and the form is altogether lost in the modern *bhashas*. This gradual transition is well marked in the verb *kri*; do:—Sans. *karttaryam*; Gir. *ketavyam*; Cut. *keṭaviyam*; Pál. *ketarram*; Prák. *kádabbam*.

In writing many Sanskrit words in which the *sth*, or *st*, dental, or cerebral, are required, a curious rule is adopted at *Girnár* of representing them by a cerebral *t* with the *s* subjoined, as आ॒ द॑ ति॒ *tisteyi* for निष्टेयात्, may remain; आ॒ त॑ द॑ न॒ *anusti* for अनुस्ति—आ॒ द॑ त॑ अ॒ न॒ *adhistána* for अस्थिन. In all these the lowermost consonant is pronounced first.

Another similar anomaly is remarked in the mode of writing *vy* in व्य॑ अ॒ *vyápatá* (S. व्याप्ता) + अ॑ ल॒ क॒ त॑ र्य॑ य॒ *kataryam* (कर्त्तव्य), &c. the *v* being placed below the *y*, whereas on the pillars (where the double consonant is employed at all) it is correctly written व्य॑ *vy*. The word बुम्हणा, ब्राह्मण, is written with the *h* below उ॑-॒ ल॑ अ॒ ; it may therefore on the above prin-

ciple be read with the *h* first, *báhmanā*, as nearer to the Sanskrit. At *Dhauli* this word is invariably written *bábhana*. In modern Páli it is written *bráhmano* with the dental *n*.

In the inflexion of the seventh case we have at *Girnar* often *mhi* (or *hmi*); at *Dhauli* *msi* or *si*. These correspond of course with the Sanskrit *smin* in अस्मिन्, &c. and all forms are allowed in the facile grammar of the written Páli, along with the regular locative in *e*. It is impossible not to recognize the Hindi postposition *meñ* in the *Girnar* form of the locative case.

The conjunctive *va* seems to be used for ‘and’ as frequently as *vá* for ‘or.’ It is the Persian conjunction, and is used in written Hindi though seldom in the spoken tongue; *aur* और the pandit pointed out in one place written *áro*, but I doubt the reading.

A great many other instances might be cited to prove that the language of *Girnar* is not precisely either pure Sanskrit, or the pure Páli of books: but as the buddhist volumes of *Ceylon* are acknowledged to be posterior by 450 years to the death of *SAKYA*, his tenets having been first reduced to writing, in *Ceylon*, about 90 years before Christ, some change may be allowed to have taken place in the mean time, and we may presume that the *Girnar* inscriptions represent the Páli (or vulgar) tongue as it was in the time of *ASOKA* on the west of India, as the pillars shew it to us as it was pronounced on the east, or in *Magadha* proper. Now it is curious enough that some of the distinguishing traits of the pillar dialect are just such as are pointed out by the grammarians of a later day as constituting the differences between *Magadhi* and *Páli*,—names it must be remembered which are indifferently employed in *Ceylon*, *Ava*, *Siam* and even *China*, to express the sacred language of the Buddhists. Thus, quoting from MM. LASSEN and BURNOUF’S *Essai sur le Páli* p. 156,—“*Ra devient la en Mágadhi; poulise, Páli pouriso.* Ce changement a quelque fois lieu en Prákrit, jamais en Páli”—and again in the next paragraph,—“en *Mágadhi* le nominatif singulier est en *e* (which takes the places of *visarga*) tandis qu’en Prákrit et en Páli il est terminé en *o*.” The use of *o* in lieu of *e* for the masc. nominative is general, but not universal in the text before us. The conclusion, to which the same savans were led at that early period of their studies, may now require a slight modification:—

“Une comparaison attentive du Prákrit et du Páli nous a conduit à cette conclusion:

“1. Qu'il existe, entre ces deux dialectes, une ressemblance telle qu'on peut avancer qu'ils sont presque identiques;

2. Que le Prâkrit altère plus le Sanskrit que ne le fait le Pâli, et qu'il offre en quelque sorte, le second degré d'alteration, comme le Pâli en est le premier et le plus immédiat.—*Essai sur le Pâli.* 15.

The second position is quite true, and it has been fully developed in a recent work (*Institutiones Prakriticæ*) by Professor LASSEN, which should be in the hands of every Indian philologist.

Coustat itaque, Pâlicam lingua sacram esse linguam Bâuddharum meridionalium, id est eorum qui versus meridiem ab oris Kalingæ potissimum solventes, religionis Buddhaicæ doctrinam primum in Taprobanen insulam transtulere, indeque in Indianum ultra Gangem transecti late propagaverunt. Ista lingua a Sanscritico fonte eodem prorsus modo derivata est atque Prâkrita præcipua, decurtata vetustioris linguae structura, nullis sive paene nullis adjectis novis inventis; uno tamen, ut ita dicam, gradu antiquior quam scenicus sermo, ceteroquin arctissimo vinculo cum Prâkrita præcipua conjuncta, saepe ab ea omnino non diversa. Cujus rei in caussa nil aliud fuisse potest, quam id, quod haec prius ad literarios usus accommodata fuerit quam illa. Ut dicam, quod sentiam, uno saeculo commode orta esse possunt discrimina, quibus Pâlica a Prâkrita distinguatur. Cohäret autem Pâlica lingua cum emigratione Buddhaicæ doctrinæ in terras meridionales; ipsa autem in India sine ullo dubio nata est. Utrum statim ab initio lingua Pâlica usi sint Baudhae meridiem petentes, necne, questio est satis obscura: verum enimvero, quum initia emigrationis in Taprobanem ante annos ante chr. n. 628-543 vix ponere liceat, eo aeo vetustior vix erit Pâlicae dialecti accommodatio ad religionem Buddhæ docendam; quanto junior sit illo aeo, alii, historiae hujus sectae enuncieandæ operam navantes, videant. Prâkritam autem scenicam quadringentisimo ante chr. n. anno vetustiorem vix crederem, nec tamen ultra saeculum juniores; nam in Mrichchakati, drame ante chr. n. probabiliter scripto, et quidem, si traditioni Indorum fides habenda sit, circa ducentesimum ante chr. n. annum, Prâkriticus sermo iam utitur norma prorus eadem, atque, in recentioribus fabulis; neque ab illo tempore immutatus est. Scenam autem ipsam si respicis, sciendum est, utrum ea ab initio varios admiserit dialectos, necne, antequam ejus aetatem cum aetate dialectorum scenicorum conjungas.

LASSEN'S Inst. Ling. Pracriticæ. 60.

The position assumed by M. LASSEN, that the Pâli of *Ceylon* was immediately derived from the shores of *Kalinga*, independently of its being matter of history, is supported by the evidence of the records now discovered in that country. Yet it must be confessed that in some respects there is a nearer connection with the dialect of *Gujerât*: and it is not unnatural to suppose that a maritime intercourse also prevailed at a very early period between the western emporia of *Surashtra*, and *Tambapanni*, the island so fruitful in aromatics, which would lead to an intercommunion of those professing the same faith in the two countries.

The vernacular language of India at that period, then, varied in different provinces:—it approached more to the Sanskrit in the northwest; diverged from it in *Magadha* and *Kalinga*:—but it was in both places essentially what is now called *Pâli*, a word supposed to be derived from

पक्षी *palli*, a village; as we should nowadays distinguish *gaonwári*, villager, boorish, from *úrdú* the language of the court. There is no trace of genuine *Prákrit* in either of the dialects, and we may therefore agree with Prof. LASSEN that the patois of the dramas was not used until three or four centuries later. The grammarians who subsequently framed the rules of this corrupted idiom cease to mention *Páli* at all;—a proof that it had already been banished the country along with the Buddhist religion; while the *Mágadhi* by them set down as nearly the lowest of jargons is evidently quite different from the inferior language of the pillars, and the *Cuttack* inscriptions.

Hereafter we may be able to classify the various written vernacular languages of India in chronological order, as regular as the modifications of the alphabet in the accompanying plate, and thus venture to approximate the date of many an uncertain author:—but the result as regards the Sanskrit itself is already manifest;—the further back we go, the nearer we approach to this parent tongue. And yet in the sixth century before Christ we are far, very far, removed from its pristine purity, in what we suppose to be the spoken dialect of the day; while on the other hand we have proof that the grammatical structure of this classical language itself has not in the slightest degree changed since the time of ALEXANDER the Great.

That there were many provincial dialects prevalent, even in the time of BUDDHA has been already proved from the books of his followers. I cannot however close my present hasty notice better than by inserting the very words extracted from the Tibetan authorities by my friend M. CSOMA de KÖRÖS at my request, since in the discussions which may ensue upon this prolific theme it will be always more satisfactory to refer to the author's own words than to a translation. Mr. CSOMA writes:—

“ I beg leave to lay before you a passage from the Index or Introduction to the one hundred volumes of the *Káh-gyur* (as quoted there from the fourth abridged commentary on the *Kála chakra Tantra*) showing that the doctrine of SHÁKYA, after his death, was compiled in different languages in different parts of India, and in some other foreign countries. The quotation, in Tibetan is thus:

કલ્પા કાર્ય-કાશ-કોણ-હૃતી-મદ્દ-યસ્તુસ-યવી-ય-થનાન-યવીક- એનેસસ-
ય-મદ્દક-પડ-શુશ્વ-સસ- પડ-અદસ-શુશ્વ-ય- રથશસ-યર્દી- યુથ-રદ્દ-યન્દ્રમ-
ખુલ્લ-રદ્દ-યદસ-શુ- ખુદક-થસ- રદ્દ-પડ-શુશ્વ-ય ના શુદ્ધ-પડ-શુદ્ધ-
ય-ય-દસ- બીસ-તેશ-ય- એનુમ-શેસસ-યમ-ય- બીસ-દે-દ-યવીક- એનેસસ-

Translation.

From the fourth abridged commentary on the *Kála chakra*.

'After TATHÁGATA, the most accomplished Buddha, the *Bhagaván* had been delivered from pain (or sorrow, i. e. had died) here in *A'ryadésha*, the compilers writing in books the three vehicles (or works on the three-fold principles) they expressed all the three true repositories of Sútra of TATHÁGATA in his language. The *Sátra* class in the Sindhu language. The *Prajnyá páramitá* and the *Mantras*, in Sanskrit. The several sorts of Tantras, in several languages: Sanskrit, Prákrit, Apabhrahsa, in that of the mountaineers, and all sorts of mlechchhas. The compilers thus collected all the doctrines taught by the all-knowing. Accordingly all the three vehicles (*Yánam*) in Tibet were written in the Tibetan language. In China, in Chinese; in great China in great Chinese. In the *Parsika* country, in Parsik language. On the north of the *Sita* (*Jaxartes*) river, in the languages of the *Champaka* country, the Ape or Monkey country, and of the Gold-land (or country). Thus it has been said.'

24th March, 1838.

A. Csoma."

[NOTE. I have not given a lithograph of Captain LANG's excellent facsimile on cloth of the Girnar inscription at length, because I am in hopes of soon having it revised on the spot, either by Dr. BURN or by Lieut. POSTANS, when I shall hasten to publish in a reduced form.—J. P.]

VIII.—Proceedings of the Asiatic Society

Wednesday Evening, the 4th April, 1838.

The Right Reverend the LORD BISHOP of Calcutta, in the chair.

Dr. H. H. SPRY, proposed at the last meeting, was elected by ballot a member of the Society.

Dr. F. HUFFNAGLE, was proposed by Mr. G. A. PRINSEP, seconded by the Secretary.

Correspondence.

Read letters from EDWARD R. DANIELL, Esq. Secretary to the Royal Institution, EDWARD BALFOUR, Esq. Secretary of the Royal College of Surgeons, and CHARLES KONIG, Esq. Secretary of the Royal Society of London, acknowledging the receipt of the last volume of the Researches and Journal.

Read a letter from H. DOUGLAS, Esq. (senior member of the Civil Service, lately retired,) dated Patna, 14th March, 1838, acknowledging the receipt of a copy of the *Khazánatul Ilm*, presented to him by the Society in consequence of the great assistance afforded by him to its compiler KHANJI' as mentioned with gratitude in his preface.

Mr. D. states that the relatives of the author are poor and uneducated, and a presentation copy would be thrown away on them.

Read a letter from JULES DESJARDINS, Esq. Secretary to the Natural History Society of the Mauritius, acknowledging receipt of the Oriental publications of the Society, and forwarding for presentation to the Society, continuation of the Meteorological observations kept by himself from June to September, 1837.

In reply to the Society's circular regarding tidal observations, M. DESJARDINS states that Mr. LLOYD, Chief Engineer on the island, had organized a complete series which had been sent direct to Professor WHEWELL.

Also a letter from M. ROUY DE ROCHELLE, President of the Geographical Society of Paris, forwarding the 7th volume of their bulletin, and noticing the receipt by mistake of duplicate of the Researches.

Also, a letter of thanks from Professor BOPP for the *Mahabharata*, &c. and presenting his own works in return. (See library.)

Museum.

Colonel MCLEOD had completed the erection of the pillar upon which the Bust of WILSON was set at the entrance into the oriental end of the Library: he received the thanks of the Society for the superior manner in which it was executed.

Library.

The following books were presented by the authors:

Vergleichende Grammatik—or Comparative Grammar of the Sanscrit, Zend, Greek, Latin, Lithuanian, Gothic, and German languages, three parts—by Professor FRANZ BOPP.

Text and Latin translation of the episode of *Nalus* from the *Mahabharata*, second part—*by the same*.

Notice du Traité Persan sur les vertus de Huçin waiz Koschift, intitulé, Akhlá-qui Muḥṣiū, de M. GARCIN DE TASSY.

Map of the Post roads in India—presented by Captain Taylor.

The following by Societies and editors.

Bulletin de la Société de Géographie. Vol. VII.—*by the Geog. Soc. of Paris.*

Transactions of the Medical and Physical Society of Bombay—*by the Society through C. MOREHEAD, Esq. Secretary.*

Quarterly Journal of the Madras Literary Society—*by Dr. Cole, Secretary and Editor.*

The Chinese Repository, Vols. II, III, IV, V, and part of VI—*presented by R. Inglis, Esq.*

The following works were presented by Captain T. S. BURT, Engineers.

Burt's Observations on Nature, I vol. edited by his son.

Burt's Christianity, a poem with notes, ditto.

Views of Ancient and Modern Hindu and Musalman Architecture—by Capt. Burt.
 The following were received from the booksellers.
 Larder's Cabinet Cyclopædia—England, vol. 7.
 Harton's Flora Americana, 3 vols. (purchased.)
 The usual Meteorological Journal—by the Surveyor General.
 Oriental Publications.

Messrs. THACKER and Co. submitted a file of the *Alif Leila* to page 504 completed : 100 pages more were in the press. The translation of the first 50 nights was expected daily and would be printed without loss of time.

Literary and Antiquities.

The Rev. W. TAYLOR, forwarded a duplicate of the continuation of his Report to the Madras Literary Society on his examination of the MAC-KENZIE manuscripts.

General ALLARD presented facsimiles of two ancient inscriptions from Kashmir.

Extract of a letter from Captain BURNES, was read, announcing the dispatch of the *Cabul* marble slab noticed at a former meeting.

Réja VENKATA ASWA RAO, presented copy of an inscription from a temple at *Warangal* in the *Hyderabad* district, in the Telinga character, with a transcript in Devanagari by himself.

Mr. E. BLUNDELL, Commissioner of the *Tenasserim* Provinces, in reply to the Society's request, forwarded a translation and restored copy of the inscription on the Great *Arracan* bell, a description of which (by Captain WROUGHTON) was published in the December No. of the Journal.

The Secretary read continuation of his translation of the religious edicts of ASOKA from *Gujerut* and *Cuttack*.

[Printed in the present number.]

He also announced the discovery that a second inscription from *Juna-garh* in *Gujerut*, in SANSKRIT, related to the circumstance of the repair of a bridge in the time of CHARDRAGUPTA, and by the very ASOKA his grandson whose *Pâli* edicts had just been described.

[This notice which is of great interest in the study of Indian antiquities, will be published in our next number.]

Captain T. S. BURT, Engineers, announced in a letter to the Secretary, that he had discovered three new pillars, two of them with inscriptions in the No. 2 character in *Malwa*, of which he had taken facsimiles for transmission to the Society.

Captain BURT writes also :—

" I paid a visit to the *Sanchi* monument and copied the third ancient inscription referred to by Captain SMITH as being illegible, and of which he did not for that reason take an impression. I am very happy in being able to confirm your remarks as to the shorter inscriptions in the old character at *Sanchi*, which from their all being written upon different huge blocks of stone (forming component parts of the terrace or outer wall of the tope) satisfactorily account for the word *dânam*, because each huge stone was the *dânam* or gift of the individual concerned.

" I have taken facsimiles of about a hundred inscriptions or more since I left *Sehore* or *Bhilsa* on the 13th ultimo, but the greater part are from *satti* monuments, and not worth sending. One however is 5 feet by 4 a splendid facsimile 1120 odd of the *Samval*."

Mr. M. KITTOE, having returned from a trip to explore the site of some coal beds in *Cuttack*, on which he had been deputed by government at the recommendation of the Coal Committee, laid before the meeting an account of the antiquarian researches he had collaterally been enabled to make at various places in his route.

[We shall hereafter give a sketch of the tour and need not therefore say more, than that although the heat was so great as almost to paralyze out-of-door exertions still the zealous explorer left nothing unseen or undone on his route :—he re-examined the inscriptions at *Dhâuli* mounted on a frail bambu scaffold,—he copied a *Bobaneswar* inscription : he drew the whole of the sculpture on the caves at *Udayagiri*,—a jaya stambha on a plain at some distance,—the *Jâjipur* images,—and

same of the black pagoda sculpture ; this temple is now under spoliation by the *Khurda* rajá, and Mr. KITTOE suggested that the Society should secure some of the better samples of its rich carving for their museum, rather than allow them to be fractured and thrown away. His visit to the coal district was attended with success and will form the subject of a separate report. The drawings had not then arrived, but we have since been gratified with a sight of them, and have remarked decided traces of the Greek soldier's dress in the battle scenes, as we noticed in the *Bhilsa* tope reliefs.]

Physical.

A further note on the geography of *Cochin China* was submitted by the Bishop of *Isauropolis*.

A letter from Captain BURNES gave an account of the *Reg ruwan* or moving sand near *Cabul*,—with a drawing of the hill by Mr. GONSALVES.

Captain CAUTLEY communicated the journal of a trip to the *Niti* pass of the *Himálayas*, by H. BATTEN, Esq. C. S.

A drawing by Mr. G. TEBBS, of a large fossil head (elephant) lately extracted from the rock near *Narsinhpur*, was sent by Dr. SPILSBURY.

Specimens of coal from a new site near the *Damoda* discovered by Lieut. J. HARRYNGTON, were presented by Mr. MANGLES.

[Extract of a letter to Captain WILKINSON.]

"I send you a specimen of coal brought from pergana *Jherria*, in which pergana that mineral abounds. This was taken from the surface of the ground about a quarter of a mile east of the town of *Jherria*, and five or six miles from the banks of the *Damoda* river. Of the depth or extent of the bed I cannot speak precisely, but it lies near the surface, is I believe of considerable thickness, and with perhaps occasional breaks or flows extends for many miles. I have found it within half a mile of the *Damoda* and in some places it probably reaches the banks.

"The quality of the coal seems to be good; the specimen I send, and all that I have procured, have been exposed to the weather for ages, and one I should suppose inferior to what might be had at greater depths. It burns freely in a small stove and reduces completely into ashes, so that it is free from slate or other combustible substance.

"To enable you to trace the position of this valuable bed of coal I may mention that it lies in about Lat. $23^{\circ} 43'$ N. and Long. $86^{\circ} 30'$ E. being about 30 miles west from the *Chinakuri Colliery*, and on the northern or left bank of the *Damoda*."

Rurulia,
6th March, 1838. }

(Signed) J. HARRYNGTON.

[For an analysis of the specimen, see the table published this month.]

Some specimens of the fossil bones discovered by Mr. POPE, at the *Cape of Good Hope*, supposed to be in continuation of the series presented by him on 7th September, 1836, had arrived addressed to Mr. R. TROTTER, who being absent, the Secretary had claimed them for the Society. No description had been received.

Mr. W. CRACROFT, presented 2 water snakes in spirits, from *Ganga Sagar*, 1 crab, and the fin of a *bhelkti* fish with a sucking insect attached. Also the skeleton of the head of a kangaroo rat.

Lieutenant FELL, I. N., presented 3 fish and a few insects.

Mr. NICOLAS, a bird, the Austrian Patrincole mounted.

When the ordinary business was concluded Mr. J. W. GRANT exhibited to the members present, with the aid of a very beautiful lucernal microscope belonging to himself, some of the fossil infusoria lately the subject of so much discussion at home. Living infusoria of nearly the same species had frequently been compared therewith, but they were not now in season; other kinds were plentifully exhibited, as also the ashes of the various coals of *Burdwan* and *Assam*, in which Mr. GRANT pointed out a marked difference, so much so that he could tell to which field any specimen belonged from the appearance of its ashes under the microscope.

Mr. Grant received the thanks of the Members present, for the gratification afforded them.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of March, 1838.

Day of the Month.	Observations at 10 A. M.		Observations at 4 P. M.		Weather.	
	Calculated Humidity.	River.	At the Well.	At the 45 feet.	Afternoon.	Evening.
1	29,921 29,480 79.9 8.8 6.8 62.0 60	59 56 20,793 29,745 91.0 22,7 23.4 50.0 49	24 21 26 77.2 77.1 76.4	21 25 25 77.1 76.3	fine dry.	fine dry.
2	30,921 29,911 81.6 11.0 12.1 62.3 78	62 61 60 54 7.75 713 91.7 62.4 46.3 49	49 47 49 53.0 64	32 31 36 55.4 54	do do.	do do.
3	820 785 82.4 10.0 9.0 64.0 81	56 55 61 57 7.75 613 91.0 19.0 19.0 64	64 63 63 55.0 78	53 56 56 54	cloudy, all day.	cloudy, all day.
4	830 785 81.2 13.0 13.0 54.0 70	57 71.3 713 85.7 11.9 10.4 64.0 78	78 77.0 49.0 49.0 57	27 27 27 57	clear clear.	clear clear.
5	831 757 81.2 13.0 13.0 54.0 70	58 71.3 713 66.3 26.1 20.1 30.7 79	79 78.5 50.0 50.0 57	31 30 30 57	cumul. cir.	cumul. cir.
6	836 835 80.3 10.4 5.6 62.8 92	59 71.3 705 90.1 10.5 9.0 49.5 59	59 58.5 49.5 49.5 59	31 30 25 79.0	nimbo. cumul.	nimbo. cumul.
7	840 834 81.4 6.4 6.6 65.6 89	71 705 757 10.2 11.2 11.3 60.5 73	73 56 44	56 44	thigh.	thigh.
8	883 861 80.9 7.5 5.5 64.9 84	72 66 58 77.8 726 89.7 11.2 16.2 51.5 60	60 35	31 28	clear.	clear.
9	819 878 81.2 8.4 9.4 64.5 81	63 61 56 80.4 731 91.0 19.0 19.0 50.2 56	56 31	27 26	cir. cum.	cir. cum.
10	30,010 961 78.7 9.5 9.6 66.0 80	57 59 55 91.5 847 77.9 9.7 9.7 58.0 79	79 56	57 53	cloudy.	cloudy.
11	29,910 953 78.3 8.9 9.6 58.0 90	56 50 53 88.4 805 63.3 14.5 15.1 60 64	64 33	36 35	clear.	clear.
12	937 917 75.3 10.1 9.9 59.6 76	54 52 54 810 727 82.6 16.1 16.2 47.0 60	60 35	31 30	do.	do.
13	937 981 75.7 12.0 13.5 63.0 76	54 52 54 810 727 82.6 16.1 16.2 47.0 60	60 35	31 30	do.	do.
14	921 971 79.4 7.9 9.0 64.5 82	63 61 741 742 742 89.5 20.4 21.0 51.0 50	50 21	22 26	dry.	dry.
15	910 845 82.0 10.9 12.2 66.0 77	54 44 54 732 678 90.1 21.6 21.6 51.5 54	54 28	25 25	do.	do.
16	847 747 83.6 11.0 15.0 64.5 70	43 44 54 732 678 92.6 22.0 22.0 42.0 50	50 27	22 19	do.	do.
17	865 811 85.6 14.1 17.9 54.5 68	57 51 41 737 687 95.0 32.6 32.6 42.0 53	53 26	24 22	haze.	haze.
18	830 814 85.0 10.2 11.5 62.0 79	58 57 50 713 649 91.3 22.8 22.8 42.0 50	50 24	22 20	clear.	clear.
19	842 868 83.5 10.5 11.3 63.2 79	57 57 50 713 649 94.5 22.7 22.7 43.0 50	50 22	20 20	mist.	mist.
20	818 834 90.1 8.1 8.1 69.7 85	68 63 60 700 637 92.2 15.7 17.0 63.0 68	68 44	41 40	do.	do.
21	837 749 86.4 8.9 10.2 65.5 82	64 63 51 735 678 93.0 18.7 21.0 48.5 63	63 35	23 23	do.	do.
22	802 837 94.1 7.2 8.6 64.9 83	70 65 53 736 686 89.1 9.3 10.4 63.4 82	82 64	61 44	fresh brz. cl.	fresh brz. cl.
23	868 840 82.5 7.5 8.4 63.2 83	67 65 54 733 675 90.4 12.3 13.3 56.7 75	75 51	51 33	do.	do.
24	836 802 84.0 6.2 7.0 73.9 87	73 72 66 735 673 91.2 10.2 10.9 63.0 82	82 62	63 40	do.	do.
25	832 840 83.2 9.9 10.4 62.0 75	59 51 50 745 684 89.7 18.7 18.7 46.9 52	52 32	23 23	do.	do.
26	866 837 84.3 11.9 13.0 57.5 72	51 46 41 725 684 93.9 18.8 20.0 48.5 54	54 33	25 23	do.	do.
27	816 769 84.3 5.1 5.4 69.6 99	78 76 62 686 629 91.2 11.5 66.0 77	77 50	54 43	do.	do.
28	735 746 85.7 6.9 7.5 70.5 85	71 65 62 694 634 91.2 10.5 11.2 66.0 75	75 57	49 40	do.	do.
29	834 862 87.1 6.4 7.1 66.6 83	65 65 55 736 730 91.2 10.5 11.2 66.0 75	75 60	54 43	do.	do.
30	834 866 76.4 5.9 5.0 65.0 90	71 73 60 830 82.6 65.2 65.2 65.2 67.0 81	81 65	61 60	do cool.	do cool.
31	823 834 80.0 5.3 5.0 68.6 66	75 70 64 765 716 83.9 13.3 11.7 64.0 71	71 40	45 46	clear cool.	clear cool.
	Mean, 29,833 29,832 81.3 9.0 9.3 63.4 77	61 55 29,757 29,698 89.5 16.5 16.9 54.8 64	64 49	35 35	one storm.	one storm.

